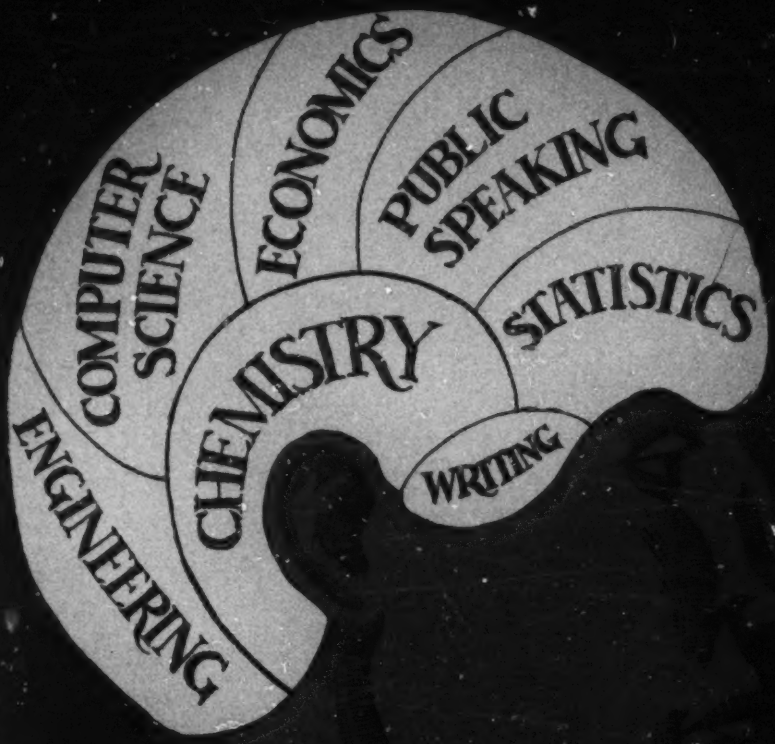
Chemical & Engineering NEWS



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What chemists need to know about chemistry

Employment Outlook Issue Page 41

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1981 Employment Outlook

Demand is relatively strong and salaries are up, *C&EN's annual look at job prospects for chemists and chemical engineers indicates. This year's feature includes a special report on what—other than science—chemists need to know.* ***Page 41***

DEMAND 1981

Chemists are in good demand, should have few problems getting jobs in 1981

Even though many segments of the economy suffered major setbacks this year, demand for chemists and chemical engineers held up well. And now that many economists believe that the nation's business health will begin to improve, job prospects for chemical professionals will more than likely continue to be good in 1981.

Two signs of strength: Unemployment among ACS members was lower in March 1980 than in March of any recent year, and the volume of "positions open" advertising in C&EN has been greater in 1980 than in recent years.

In the Employment Clearing House at the most recent ACS national meeting, the average number of job interviews per candidate was somewhat less than it was at the national meeting 12 months earlier. One reason may have been that the Las Vegas location of the meeting was less convenient for many employers than was the 1979 fall meeting in Washington, D.C.

Recruitment of graduating chemists and chemical engineers on several college campuses in academic year 1979–80 was more active than it was in 1978–79. Some schools report all-time highs for the number of employers who interviewed their graduating chemists or the number of interviews they had. College placement officers, moreover, generally are optimistic about the demand for their graduating chemical professionals in academic year 1980–81.

According to Peggy Dempsey, technical placement adviser in the Career Planning & Placement Center at the University of California, Berkeley, demand for both chemistry and chemical engineering graduates was unusually brisk in 1979–80, with 57 employers interviewing graduating chemistry students, compared to 43 in 1978–79. In addition, 114 employers interviewed chemical engineers, compared to 94 in 1978–79.

Many of these recruiters, Dempsey says, have been from the petroleum, electronics, aerospace, and food processing companies who have facilities on the West Coast. The nation's general economic slump appears to have had very little adverse effect on the demand of these employers for chemists and chemical engineers. She adds, "I have heard almost nothing from employers, except those in the automobile industry, to indicate a reduced demand for graduates in the physical sciences or engineering."

Dempsey believes that, on the basis of employer visits already scheduled, the recruiting activity for chemists and chemical engineers at Berkeley also will be good in the 1980–81 academic year.

The University of Illinois' school of chemical sciences, which covers both chemistry and chemical engineering, experienced unusually active recruiting in 1979–80, with student interviews reaching an all-time high.

Rebecca J. Simon, placement director at the school of chemical sciences, believes that this may be attributed to the current efforts of employers to catch up on their hiring of chemical professionals following the sharp cutbacks in the hiring of such employees in the mid-1970's. Employer recruiting visits increased from 192 in 1978–79 to 210 in 1979–80. The number of man-days that employers spent interviewing on campus rose from 309 to 425. Total student interviews climbed from 3631 to a record 4868. Because of their packed interviewing schedules and long working hours, she says, many recruiters felt they had "earned their salt" while on campus.

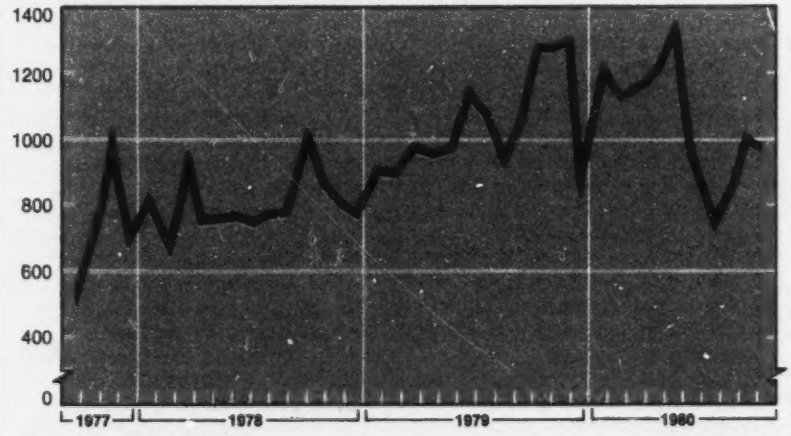
The outlook for the 1980–81 season, Simon says, is good. Only five or six employers have canceled interview visits requested earlier this year. These losses, which are normal, have been counterbalanced largely by several employers planning to interview students on campus who have never done so before or have not been seen for several years.

The number of organizations that interviewed graduating chemists at the University of Wisconsin rose from 76 in 1978–79 to a record 85 in 1979–80. Audrey L. Aylesworth, the university's chemistry placement coordinator, says that the average B.S. chemistry graduate in 1979–80 got about two job offers. The average M.S. chemistry graduate received about three offers, the average Ph.D. about three offers, and the average postdoctoral student about two offers. These figures are about the same as in 1978–79. On the other hand, in 1974–75, the typical Ph.D. graduate, for example, felt extremely fortunate with even one job offer.

Aylesworth noted almost no talk of a business recession among the company representatives who interviewed graduating chemistry students at Wisconsin. The chemists in exceptionally large demand, she says, were those with special training in polymer and petroleum chemistry. Some

Recruitment advertising breaks previous records

Volume of C&EN "positions open" advertising, column-inches[a]



a Total volume of "positions open" advertising in four consecutive issues of C&EN ending with the issue specified. No issues were published in the last week of December 1977, 1978, and 1979.

chemists, she adds, have been benefiting from the shortage of chemical engineers. She finds that some companies are hiring chemists to train them to become chemical engineers.

Aylesworth expects 1980–81 to be at least as good as 1979–80. "So far," she points out, "only one company has canceled its planned visit. Also, some companies intend to spend more time on campus interviewing chemistry students in 1980–81 than they did in the previous academic year."

As another measure of demand for chemists and chemical engineers, participation in the Employment Clearing House (ECH) at the ACS fall 1980 national meeting in Las Vegas was noticeably less than at the fall meeting in Washington, D.C., in 1979. Because more employer representatives and job applicants live east of the Mississippi than west of it, many probably found Las Vegas less accessible. No doubt, fewer employer representatives showed up in Las Vegas because they assumed that smaller numbers of job applicants would be on hand. Moreover, a few employer representatives decided not to go to the latest ECH when the meeting site was changed at almost the last minute from San Francisco to Nevada's gambling mecca.

To what extent, if any, the lower ECH figures for fall 1980 reflect a reduced demand for chemists is a matter of conjecture. Audra B. Rafter, manager of the ACS Employment Aids Office, which operates ECH, points out that the average number of interviews per job applicant was not markedly fewer at Las Vegas than in Washington. Partly from this, she concludes that demand for chemists during the past year has remained reasonably constant.

The number of employer representatives who used ECH at the Las Vegas meeting was 209, compared to 368 in Washington. Job applicants at Las Vegas numbered 356, down from 589. The positions listed at ECH for candidates' review totaled 375 in Las Vegas, compared to 536 in Washington. The total number of job interviews declined to 1165 from 2279 in Washington.

Perhaps the most significant finding was that the average number of interviews per candidate was 3.3 in Las Vegas, compared to 3.9 in Washington. The Las Vegas figure was considerably better than the disappointing 2.3 interviews per candidate reported by ECH at the fall 1975 national meeting in Chicago, a city far more accessible than Las Vegas to many chemical employers.

By far the greatest number of positions (87) listed at ECH in Las Vegas was for analytical chemists. This has been typical for many years, although the specialists in largest demand at the fall 1979 clearinghouse were polymer chemists.

Ranked below analytical chemists were organic chemists (52 openings), polymer chemists (43), biochemists (24), chemical engineers (21), and physical chemists (21). The number of openings for inorganic chemists (13) was relatively low, as is generally the case. The situation this year, however, was not nearly so bad as it was at the fall 1977 meeting, when ECH listed only two positions for inorganic chemists.

The U.S. Office of Personnel Management (formerly the Civil Service Commission) says that the federal government's hiring of chemists, which was unusually low in fiscal 1979 (ended Sept. 30), has since increased. The government hired 601 chemists in fiscal 1977, 475 in fiscal 1978, and only 292 in fiscal 1979. However, in fiscal 1980, the number rose to an estimated 400.

The government steadily has been increasing its hiring of chemical engineers. It hired 58 in fiscal 1977, 62 in fiscal 1978, 73 in fiscal 1979, and an estimated 80 in fiscal 1980.

These data cover chemical professionals in grades 5 through 15, excluding high-level personnel in the

Companies plan to step up hiring slightly

Chemists and chemical engineers looking for a job in industry are likely to find the market for their skills at least a bit stronger next year than it has been in 1980. But this improvement hardly will be robust, at least in comparison with some recent years. And many leading employers admit that their demand for chemists and engineers is difficult to predict, considering the current uncertainty about the near-term state of the economy. Employers are just about unanimous, though, in their opinion that employment prospects generally are good through the middle of the current decade for chemists, and probably even better for chemical engineers.

This, in any event, is the outlook as indicated by the latest of C&EN's annual surveys of the hiring plans of leading U.S. chemical employers. The survey covers 30 companies—mostly in the chemical industry but also from such related fields as petroleum, rubber, and drugs—that currently employ more than 15,000 chemists and 18,000 chemical engineers.

These companies will be building up their staffs of chemists and chemical engineers if only modestly, both this year and next. They employed 3% more chemists at midyear than they did at mid-1979 and plan to add another 3% by mid-1981. Their chemical engineers were up 5% during the 12 months ended last June and the number is expected to increase at the same rate during the current 12-month period.

This year, however, they are hiring 3% fewer chemists than they did in 1979 (a year when hiring was particularly strong). Next year, however, hiring plans for chemists are about on par with this year, may even be up slightly. As for chemical engineers, who had a considerably better year in 1979 than did chemists, industrial employers see a 2% cutback in hiring plans this year followed by a 2% increase in 1981, for a net standoff in new hires for the entire two-year period.

Most of these new employees will be fresh out of school. Nearly three fifths of the chemists expected to be hired this year and next will be new graduates; last year only half were. Two thirds of the chemical engineers hired last year had just been awarded their degrees; in 1980 and 1981, three fourths are expected to be new graduates.

In search of new graduates, companies are recruiting more vigorously at college campuses and universities. They made 13% more visits to campuses during the academic year 1979–80 to seek out chemists and 7% more visits looking for chemical engineers. During the current year, visits are likely to be at least as frequent as last year and even may increase slightly.

Most companies, too, are seeking chemists with specialized skills. As was the case last year, analytical chemists are in greatest demand, followed by organic, polymer, and physical chemists. Chemists with a background in biochemistry, catalysis, pharmaceutical chemistry, environmental chemistry, solid-state chemistry, or coal chemistry also are in demand.

Women, meanwhile, continue to make modest inroads among chemists and chemical engineers in industry. They accounted for 8% of the chemists employed by respondents to C&EN's survey in mid-1979 but 10% of the total in mid-1978; that percentage is not expected to change perceptively by mid-1981, however. Women also accounted for 3% of the companies' chemical engineers last year, increasing to 4% this year; next year they are expected to make up 5% of the total.

so-called "supergrades." Moreover, the data cover people only in about 80 federal agencies in the "competitive" civil service system, which does not include such "excepted" agencies as the Federal Bureau of Investigation, the Central Intelligence Agency, and Tennessee Valley Authority.

The total number of chemists working for the federal government is currently at almost the highest level in recent years. On board were 8025 chemists in October 1977, 8256 in October 1978, 8130 in October 1979, and an estimated 8250 in October 1980. The total number of chemical engineers working for the government was 1433 in October 1977, 1465 in October 1978, 1451 in October 1979, and an estimated 1475 in October 1980.

Looking beyond 1980, Harry L. Clark, a manpower analysis officer in the Office of Personnel Management, says, "There is a strong possibility of a substantial growth in the government's hiring of chemists and chemical engineers in the coming years. Much will depend on the extent to which Congress in fiscal 1981 and 1982 acts to expand chemical R&D in the fields of defense and energy."

An indication of the demand for new graduates in chemistry and chemical engineering (as well as in many other fields) is provided by data from the College Placement Council, Bethlehem, Pa., on job offers made to graduating students in a representative group of U.S. colleges and universities (now 164).

CPC figures show that candidates for B.S. degrees in chemistry received 13% more job offers in 1979–80 than in 1978–79. Inexperienced M.S. candidates for chemistry degrees received 28% fewer offers in 1979–80 than in 1978–79, but Ph.D. candidates received 25% more offers.

As for chemical engineering students, B.S. candidates received 11% more offers in 1979–80, inexperienced M.S. candidates got 23% fewer offers, and Ph.D. candidates got 44% more offers.

According to the latest CPC report, vastly more job offers in 1979–80 went to B.S. chemical engineering students (7029) than to B.S. chemistry students (427). This partly reflects the more intense demand for chemical engineering candidates than for chemists. It also reflects the higher percentage of B.S. chemical engineers who begin employment immediately after graduation; B.S. chemistry candidates frequently do not look for jobs because they plan to go on to advanced study.

The CPC findings indicate that the number of job offers to women candidates for B.S. degrees in chemistry is increasing more rapidly than those to men candidates. The number of offers that went to women was 24% higher in 1979–80 than in 1978–79, but the offers to men increased only 6%.

More B.S. chemists and chemical engineers are graduating, but Ph.D.'s continue to decline

Academic year	Degrees awarded in chemistry[a]			Degrees awarded in chemical engineering		
	Bachelors	Masters	Ph.D.'s	Bachelors	Masters	Ph.D.'s
1968–69	11,807	2070	1941	3557	1136	400
1969–70	11,617	2146	2208	3728	1045	438
1970–71	11,183	2284	2180	3615	1100	408
1971–72	10,721	2259	1971	3663	1154	394
1972–73	10,226	2230	1882	3638	1051	397
1973–74	10,525	2138	1858	3454	1045	400
1974–75	10,649	2006	1824	3142	990	346
1975–76	11,107	1796	1623	3203	1031	306
1976–77	11,322	1775	1571	3581	1086	291
1977–78	11,474	1692	1525	4615	1237	259
1978–79	11,643	1765	1518	5655	1149	304

[a] Does not include biochemistry and geochemistry. Source: Department of Education's National Center for Education Statistics

The total number of chemists and chemical engineers who are in the job market is affected greatly by the number who graduate each year. According to the Department of Education's National Center for Education Statistics, the number of people who received B.S. degrees in chemistry (excluding biochemistry and geochemistry) rose from 11,474 in 1977–78 to 11,643 in 1978–79. In the same period, the number of Ph.D. degrees awarded in chemistry declined from 1525 to 1518. The number of new Ph.D. chemistry graduates has decreased every year since 1969–70, when the total was 2208.

The number of bachelor's degrees awarded in chemical engineering reached a record high of 5655 in 1978–79. In the previous academic year, the figure was 4615. By comparison, 3557 B.S. degrees in chemical engineering were granted in 1968–69. Ph.D.'s in chemical engineering, which declined each year from 400 in 1973–74 to 259 in 1977–78, increased in 1978–79 to 304.

An American Chemical Society study of its members shows that, on March 1, 1980, only 0.9% of the chemists were unemployed but seeking employment. In recent years, the unemployment rate has been declining steadily. The proportion of ACS chemists who were unemployed but seeking employment was 1.5% on March 1, 1977, for example, and 1.1% on March 1, 1979.

The 0.9% unemployment rate for ACS-member chemists in March 1980 was, in fact, the lowest since the society began its employment surveys in 1971. The peak level of unemployment among member chemists was 3.2% in 1972.

Clearly, unemployment is much less of a problem among chemists than it is among the total civilian labor force. In the latter group, the unemployment rate was 7.4% in March 1977, 5.7% in March 1979, and 6.2% in March 1980.

Among B.S. chemists responding to the ACS survey, 1.4% were unemployed but seeking employment on March 1, 1980. At the same time, the comparable figures were 1.0% for M.S. chemists and 0.6% for Ph.D.'s.

The American Institute of Chemical Engineers reports that, as of February 1980, only 0.4% of its members were unemployed, as was true also in both February 1978 and 1979. Joblessness among AIChE members was decidedly greater in the early 1970's. For example, 3.7% of the members in mid-1971 were unemployed. The 1980 institute survey shows that the median length of time that a member remained jobless during the survey period was 11 months (a figure based on a very small sample), compared to three months reported in the 1979 study.

A useful barometer of how vigorously employers are looking for chemists and chemical engineers is the volume of "positions open" advertising in C&EN. The volume was greater during the 12 months between October 1979 and October 1980 than it was in the previous 12 months, which was an unusually good period.

During the first nine months of 1980, C&EN published 10,330 column-inches of help wanted advertising, 3% more than in the same period of 1979. The third quarter of 1980, however, saw a 17% drop in such advertising. Volume fell from 3493 column-inches in July, August, and September of 1979 to 2895 in the same months of 1980. □

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SALARIES 1981

Chemists are earning more, but inflation takes a heavy toll

Median salaries of experienced chemists increased 6% for those with B.S. degrees, 4% for M.S.'s, and 8% for Ph.D.'s between March 1979 and March 1980. Meanwhile, starting salaries of chemists fresh out of school rose 3% for B.S.'s, 18% for M.S.'s, and 15% for Ph.D.'s. (The apparent small increase for inexperienced B.S. chemists may be the result of sampling error in 1979.)

According to the Department of Labor's consumer price index, living costs climbed nearly 15% between March 1979 and March 1980. Hence, although the median salaries of experienced chemists increased in current dollars, they declined when inflation is taken into account.

These are among the findings of two annual salary surveys conducted by the ACS Office of Manpower Studies. One study, which covers the salaries only of ACS members, was issued in midyear as Salaries 1980 (C&EN, June 30, page 25). The other survey deals with the salaries of inexperienced chemistry and chemical engineering graduates (those with 12 months or less of professional experience), many of whom are not ACS members. The findings of this survey will be published in early November as Starting Salaries 1980.

More than 16,000 ACS members provided data for the 1980 salary survey of experienced chemists and chemical engineers. The study shows that the median annual salary of all B.S. chemists increased from $23,500 on March 1, 1979, to $25,000 on March 1, 1980. During the same period, the median annual salary of M.S. chemists rose from $25,000 to $26,000, and the median for Ph.D. chemists climbed from $29,000 to $31,200.

In addition, the survey indicates that the median annual salary of B.S. chemical engineers who are ACS members rose 10% from $31,700 on March 1, 1979, to $35,000 on March 1, 1980. During this period, the median for M.S. chemical engineers increased 11% from $31,500 to $35,000. And for Ph.D. chemical engineers, the median climbed 9% from $35,000 to $38,000. Thus at each degree level, not only do the chemical engineers have a higher annual salary than do their chemist counterparts, but their salaries showed a greater percentage increase between 1979 and 1980.

The American Institute of Chemical Engineers reports that the median annual salary of its members at all degree levels increased 5% from $29,500 in February 1979 to $31,000 in February 1980. Median salaries of AIChE members are less than those reported for ACS-member chemical engineers because, at least in part, members of AIChE tend to be younger and thus have less professional experience than do chemical engineers belonging to ACS.

Even though the median salary of all ACS-member chemists climbed a weighted average of 7% between March 1979 and March 1980, the increase in the consumer price index during this period was double that rate. Consequently, the median annual salary of chemists actually decreased in constant dollars about 7%, the largest decline in chemists' purchasing power in at least the past 25 years.

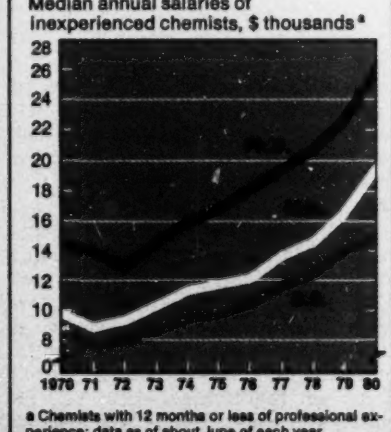
Chemists' salaries are influenced by the type of employer they work for. Ph.D. chemists, for example, received a median annual salary in March 1980 of $36,000 if they worked in private industry, $34,100 if in the federal government, and $25,000 if in colleges and universities.

The type of industry a chemist works for also can affect his or her salary. In March 1980, the highest median annual salary paid to industrial Ph.D. chemists, for example, was the $38,850 received by those in the petroleum industry. Next in order were Ph.D. chemists in the pharmaceutical industry ($37,850), chemicals ($36,300), rubber ($36,150), paper ($35,000), metals ($35,000), coatings ($32,500), and food ($32,000).

Other factors affecting salaries are the position a chemist holds and his or her area of specialization. For Ph.D. chemists, the median annual salary in March 1980 was $43,000 for people in R&D management, $40,000 for those in general management, $39,000 in consulting, $38,000 in marketing, $32,900 in basic research, and $31,700 in applied R&D. The median salary of Ph.D. chemists specializing in polymer chemistry was $37,000, in pharmaceutical chemistry $36,000, in biochemistry $30,150, in organic chemistry $30,000, in analytical chemistry $29,600, and in inorganic chemistry $28,350.

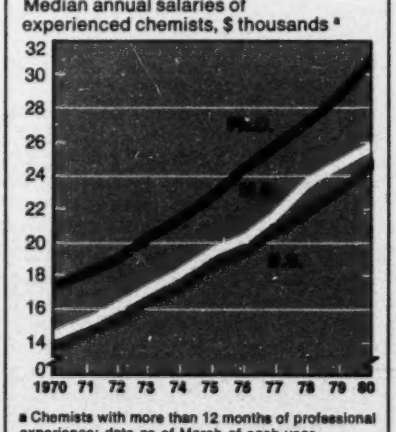
One out of every 10 ACS members is a woman, and the data consistently show that women chemists, overall, receive lower salaries than men chemists. One reason is that women chemists tend to be younger than men chemists. The median age of women belonging to ACS is only 36; for men

Chemists' starting salaries rise at all degree levels



a Chemists with 12 months or less of professional experience; data as of about June of each year.
Source: ACS starting salary surveys

Salaries of experienced chemists continue to climb



a Chemists with more than 12 months of professional experience; data as of March of each year.
Source: ACS comprehensive salary surveys

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Salaries differ depending on type of work

Chemists earn reasonably good salaries. But how do they compare with those of other professionals?

Comparisons of this type are difficult to make because equivalent data are not available for many types of work. Some organizations, however, do collect salary information that is helpful in suggesting the level of earnings in various fields.

The American Medical Association, for example, estimates that the average net income (the average gross income less professional expenses) of physicians from their medical practice was $68,600 in 1979. The American Dental Association reports that the 1979 average net income of dentists from their professional practice was $48,363. According to the American Institute of Physics, the average salary of members of the organizations that comprise AIP (most of whom are physicists) was about $33,000 in May 1980.

Data on the salaries of workers in various white-collar occupations in private industry are compiled annually by the Department of Labor's Bureau of Labor Statistics. This information is collected mainly to determine whether the salaries the government pays its employees are in line with those of employees in industry. The data enable general comparisons to be made between the salaries earned in various professional and administrative occupations at differing levels of experience and job responsibility.

The latest BLS data on upper-level chemists are for people working at a somewhat lower level than was true last year (C&EN, Oct. 22, 1979, page 47). As a result, the salary reported for upper-level chemists last year ($48,961) was higher than for such chemists in 1980. The salary for upper-level chemists in 1979 equivalent to this year's figure was $42,016. A similar situation occurs with upper-level chief accountants and personnel directors.

	Average annual salary[a]
Attorneys, upper level	$60,641
Engineers, upper level	50,079
Chief accountants, upper level	50,073
Personnel directors, upper level	49,730
Chemists, upper level	45,883
Accountants, upper level	40,292
Engineers, middle level	28,486
Chief accountants, starting	28,347
Chemists, middle level	27,681
Personnel directors, starting	24,719
Attorneys, starting	20,911
Engineers, starting	19,411
Chemists, starting	16,200
Accountants, starting	15,149

a As of March 1980, excluding overtime and nonproduction bonuses, but including cost-of-living bonuses and incentive earnings. Source: Department of Labor's Bureau of Labor Statistics

it is 44. Because of their lower age, women members tend to have fewer years of professional experience. In addition, women chemists are less likely than men chemists to hold jobs that typically are high-paying, such as in management, and also are less likely to have a Ph.D. degree.

In private industry, the median salary of B.S. chemists in March 1980 was $26,800 for men and $19,800 for women. For M.S. chemists in private industry, the median was $29,100 for men and $23,100 for women. And for Ph.D. chemists in private industry, it was $36,000 for men and $28,800 for women.

The 1980 ACS starting salary survey, based on replies from close to 3300 inexperienced chemists and chemical engineers, shows that the median annual starting salary of inexperienced B.S. chemists working full time was $15,000, up from $14,500 reported in 1979. The 1979 figure, however, may have been unrepresentatively large. Starting salaries of B.S. chemists were found to have been up an unusual 14% by the 1979 survey, compared to this year's 3% increase and 1978's 6%.

The 1980 median starting salary of M.S. chemists rose to $20,000 from $17,000 in 1979. In the same period, the median starting salary of Ph.D. chemists climbed from $23,000 to $26,400.

As is typical, the median starting salaries of inexperienced chemical engineers exceed those of chemists. The median starting salary of B.S. chemical engineers working full time was $21,600 in 1980, compared to $19,800 in 1979, an increase of 9%. The median for M.S. chemical engineers increased 14% from $21,000 to $23,850. The median for Ph.D. chemical engineers climbed 13% from $25,400 to $28,800.

The type of employer has an effect on the median salaries of both chemists and chemical engineers. The medians for inexperienced full-time B.S. chemists were $16,800 in manufacturing industry; $14,750 in nonmanufacturing industry; $13,800 for those in federal, state, and local governments; $12,000 for those in hospitals, independent laboratories, and nonprofit organizations; and $10,300 for those in colleges and universities. The financial picture for academic chemists may not be so unfavorable as it may seem, however, since many supplement their incomes with summer jobs and consulting work.

The limited data available on the median starting salaries of full-time B.S. chemical engineers according to type of employer indicate that they received $21,900 if they work in manufacturing industry and $21,000 in nonmanufacturing industry.

In several recent years, median starting salaries of B.S. women chemists and chemical engineers in private industry have (contrary to what was true earlier) been higher than those of their male counterparts. This year, however, the median for B.S. women chemists was almost identical to that of men chemists—$16,750 vs. $16,800. On the other hand, the median for B.S. women chemical engineers was higher than that of men chemical engineers—$21,900 vs. $21,700. Starting salaries paid to women generally have been improving in recent years as employers attempt to increase the representation of women on their staffs.

Among inexperienced B.S. chemists in 1980, 36% were employed full time in the chemical profession. In addition, 42% had graduate assistantships or fellowships, 12% were working full time outside the chemical profession, 8% were unemployed but not seeking employment, and 2% were unemployed and seeking employment.

Among inexperienced Ph.D. chemists, 65% were working full time in the chemical profession, 33% had postdoctoral fellowships, and 2% were working full time outside the chemical profession.

Ph.D. chemists obviously are finding it much easier to get jobs today than they did several years ago. This is reflected in the fact that the proportion of inexperienced Ph.D. chemists working full time in the chemical profession has increased from 44% in 1976 to 56% in 1979 and to 65% in 1980. Furthermore, the percentage of new Ph.D.'s who do postdoctoral work (sometimes because they are unable to obtain other employment) has fallen from a high of 49% in 1976 to 38% in 1979 and 33% this year.

Most inexperienced chemical engineers in 1980 had jobs in the chemical profession—78% of B.S.'s, 86% of M.S.'s, and nearly all of Ph.D.'s. A few were employed outside the chemical profession—9% of the B.S.'s and 2% of the M.S.'s. Some had assistantships or fellowships—11% of the B.S.'s and 8% of the M.S.'s. Nearly none of the chemical engineers were unemployed. □

CAREER 1981 PLANNING

Career Planning is designed to acquaint both the student and the experienced graduate with services, sources of information, and organizations that can supply guidance in selecting, obtaining, and changing careers. The directory is a guide to U.S. organizations that employ significant numbers of chemists and chemical engineers. It is, of course, not all-inclusive. The directories listed under General Information, for instance, include the names of other organizations that employ chemists and chemical engineers. Inquiries about career opportunities in specific organizations should be addressed directly to the organization, in care of the personnel director.

GENERAL INFORMATION

American Chemical Society: *Chemical & Engineering News* salary surveys, employment surveys, and classified ads (see also ACS Information below), 1155—16th St., N.W., Washington, D.C. 20036.

Directories: "American Council of Independent Laboratories Directory, 1980," 1725 K St., N.W., Washington, D.C. 20006; "Association of Consulting Chemists & Chemical Engineers Council Directory," 20th edition, 1980, 50 East 41st St., New York, N.Y. 10017; "College Placement Annual, 1981," College Placement Council, P.O. Box 2263, Bethlehem, Pa. 18801; "American Consulting Engineers Council Membership Directory, 1980–81," 1155—15th St., N.W., Washington, D.C. 20005; "Directory of Chemical Producers, 1980," SRI International, Menlo Park, Calif. 94025; "Industrial Research Laboratories of the United States," 16th edition, 1979 (1981 edition will be available in the fall of 1981), R. R. Bowker Co., 1180 Ave. of the Americas, New York, N.Y. 10036; "Research Centers Directory," 6th edition, 1979 (7th edition will be available in July 1981), Gale Research Co., Book Tower, Detroit, Mich. 48226.

Scientific Manpower Commission: "Science and Engineering Careers—A Bibliography," April 1974, $2.00; "Salaries of Scientists, Engineers, and Technicians," 9th edition, November 1979, $20; "Professional Women and Minorities—A Manpower Data Resource Service," 2nd edition, November 1978, $75 (1980 supplement, $30); "Supply and Demand for Scientists and Engineers—A Review of Selected Studies," February 1977, $3.00; "Manpower Planning for Scientists and Engineers," May 1977, $2.00; *Manpower Comments*, 10 issues a year, $25 per year. All available from 1776 Massachusetts Ave., N.W., Washington, D.C. 20036.

Scientific and professional societies: American Institute of Chemists, 7315 Wisconsin Ave., N.W., Washington, D.C. 20014; American Institute of Chemical Engineers, 345 East 47th St., New York, N.Y. 10017; and National Society of Professional Engineers, 2029 K St., N.W., Washington, D.C. 20006. They offer information on their specific programs for career guidance.

Sources of information about prospective employers: Available in many public libraries, "Moody's Industrial Manual," "Dun & Bradstreet," "Thomas Register of American Manufacturers," and "Standard and Poor's Register."

U.S. Department of Labor: Occupational Outlook Handbook, 1980–81 edition, Bulletin 2075, $11 per hardback copy and $8.00 per paperback copy. Order from Bureau of Labor Statistics, 1515 Broadway, New York, N.Y. 10036, or other office of BLS.

Vocational guidance manuals: "Opportunities in Chemistry" by John H. Woodburn, 1978; "Opportunities in Environmental Careers" by Odom Fanning, 1975; "Opportunities in Materials Science and Engineering" by Charles Wert, 1979; "Opportunities in Energy Careers" by John H. Woodburn, 1978; and "Opportunities in Chemical Engineering" by D. Joseph Hagerty, Earl R. Gerhard, and Charles A. Plank, 1978. Available from VGM Career Horizons, a division of National Textbook Co., 8259 Niles Center Rd., Skokie, Ill. 60077. "Encyclopedia of Careers and Vocational Guidance" by William E. Hokpe, editor, 1978. Volume 1: "Planning Your Career." Volume 2: "Careers and Occupations." "Woman's Guide to Career Preparation" by Ann Jawin, 1979. Available from Doubleday & Co., 501 Franklin Ave., Garden City, N.Y. 11530. "Peterson's Annual Guide to Careers and Employment for Engineers, Computer Scientists, and Physical Scientists," 1980 edition. Available from Peterson's Guides, P.O. Box 2123, Princeton, N.J. 08540.

ACS INFORMATION

Education aids for high school students: "Careers in Chemistry: Questions and Answers," "List of ACS Approved Schools," and "Financial Aids for College Students." All single copies free from ACS Special Issues Sales. *SciQuest*, published 10 times a year, $10 per year ($12 in 1981) or $25 for three years ($29 in 1981). Student group rates of 10 or more subscriptions entered with a single payment but mailed to different addresses, $6.50 each (also in 1981). Bulk subscriptions that are entered with a single payment for the school term and are mailed to one address, as low as $3.75 each, depending on the number of subscriptions ordered. Available from ACS Circulation Development Department, 1155—16th St., N.W., Washington, D.C. 20036.

Education aids for college students: "College Chemistry Seniors," a listing of résumés submitted by seniors majoring in chemistry and chemical engineering who plan to enter graduate school, 1980–81 edition, $50; "Directory of Graduate Research," a listing of Ph.D. degree-granting departments of chemistry, chemical engineering, biochemistry, and pharmaceutical/medicinal chemistry in the U.S. and Canada, with names of faculties, their research interests, and bibliographies of their recent publications, 1979 edition, $30; and "College Chemistry Faculties," a listing of two- and four-year college and university teachers of chemistry, chemical engineering, and biochemistry in the U.S., Canada, and Mexico, 5th edition (1980), $25. All available from ACS Special Issues Sales. "Graduate School Information Aids," "Careers Nontraditional," and "Chemical Careers in the 1980's," are also available from ACS Special Issues Sales, single copy free. *Journal of Chemical Education*, a monthly publication of the ACS Division of Chemical Education, $15 per year for regular domestic subscribers and $11.25 per year for students. Available from *Journal of Chemical Education*, Subscription Fulfillment Department, 20th & Northampton St., Easton, Pa. 18042.

Continuing education aids: ACS Short Courses, live, intensive state-of-the-art courses in chemistry offered publicly year round, also available to organizations on an in-house basis; ACS Audio Courses, taped

state-of-the-art courses by recognized authorities; ACS Film/Video Courses, chemistry lectures on 16-mm film and videotape; and ACS Interaction Courses, correspondence courses developed by experts and given by well-qualified instructors. All available from ACS Department of Educational Activities.

Employment information: ACS publishes several annual volumes of statistical data about the chemical profession and the salaries paid to its members: "Salaries 1980," the results of a salary survey of the ACS membership, 75 pages, $25; "Professionals in Chemistry 1978," a statistical yearbook, 74 pages, $25; and "Starting Salaries 1979," the results of a survey of new graduates in chemistry and chemical engineering, 61 pages, $5.00 (the 1980 edition will be available in early November for $10). All from ACS Special Issues Sales. The 1978 edition of "Professional Employment Guidelines" is free; send stamped, self-addressed, business-size envelope; "Chemistry: A Job or a Career?" consists of a 30-minute cassette tape, booklets, and a slide presentation that are offered free to student affiliate chapters and to chemistry and chemical engineering departments. Available from ACS Department of Professional Relations & Manpower Studies.

Salary information in C&EN: Starting salaries in 1979, C&EN, Oct. 22, 1979, page 46. Comprehensive salary survey in 1980, C&EN, June 30, page 25.

ACS EMPLOYMENT AIDS

Employment Clearing House: ACS members and student affiliates in search of a new position can file applications in the Washington office at no charge. Employers may write or call the Washington office to receive copies of résumés of applicants who possess qualifications specified for the positions. The service is year-round and nonconfidential.

Confidential Employment Listing: This service enables employed ACS members who are seeking a new position to have their records on file at the ACS Employment Aids Office and to have them made available to all but certain specified employers, such as their present employer. This listing enables experienced candidates who otherwise would not wish to have their records circulated on a nonrestricted basis to let all but specified employers know of their desire to find a new position. Because of the added cost of handling such confidential records, ACS members are charged $25 a year for such a listing.

Employment Clearing House, National Meetings: The society aids ACS members and employers to arrange on-the-spot interviews at ACS national meetings. This free, nonconfidential service is open to those registered and in attendance at the meeting. Unemployed members may have registration fees waived on request.

Academic Openings: This publication lists positions, including postdoctoral positions, available at colleges and universities. It is published on a monthly basis if sufficient notices are received from academic institutions. The 20th of any month is the deadline for publication. If too few listings are received, publication is held over until the next month. This service is provided for all those interested in academic employment. Subscriptions to Academic Openings are $12 a year and can be obtained by writing to the ACS Employment Aids Office.

C&EN employment advertising section: Student affiliates and employed ACS members receive discounts from regular advertising rates. ACS members who are unemployed or are under notice of involuntary unemployment within 60 days may place one free classified "situations wanted" advertisement that will appear in every other issue for a period of six months—for a total of 13 insertions a year. Student members or student affiliates who have not gained employment two months before graduation are entitled to the same privileges. Retired members are entitled to six free nondisplay advertisements a year. See the Employment Ads Information box at the start of the C&EN employment advertising section for instructions.

Résumé service: An unemployed member may obtain free up to 50 printed copies of his or her résumé, limited to two pages typed in reproducible form. Write ACS Employment Aids Office.

ACS local sections: Some sections provide job assistance. Contact the secretary of local section.

For ACS information listed in this section, write to American Chemical Society, 1155—16th St., N.W., Washington, D.C. 20036.

OTHER EMPLOYMENT SERVICES

Classified listings: *Chemical & Engineering News*, weekly newsmagazine of the American Chemical Society; *Chemical Engineering Progress*, monthly magazine of the American Institute of Chemical Engineers; *The Chemist*, monthly publication of the American Institute of Chemists; *Science*, weekly magazine of the American Association for the Advancement of Science; and classified sections of newspapers.

College placement bureaus: Campus placement offices usually maintain a file of openings for graduating students and recent graduates. They frequently arrange interviews between students and employers.

Private placement agencies: Check those in your area to determine what services are offered. They differ in quality, cost, and nature of service.

State employment agencies: These organizations list openings for professional people without charge and also provide guidance on available government programs for retraining scientists and engineers.

U.S. Civil Service Commission: This agency maintains a listing of open examinations for jobs in government laboratories and other installations. Descriptions, locations, and salary information are available by writing to the commission at 1900 E St., N.W., Washington, D.C. 20415.

ORGANIZATIONS FOR WOMEN

American Association for the Advancement of Science: Office of Opportunities in Science, 1776 Massachusetts Ave., N.W., Washington, D.C. 20036; Women's Caucus, Yolanda Scott George, Professional Development Program, University of California, Berkeley, Berkeley, Calif. 94720.

American Association of University Professors: Committee on Status of Women in the Profession, AAUP, 1 Dupont Circle, N.W., Washington, D.C. 20036.

American Chemical Society: Women Chemists Committee, Wanda L. Brown, 212 Brightwood Pl., San Antonio, Tex. 78209.

American Society of Biological Chemists: Committee on Equal Opportunities for Women, Elizabeth S. Maxwell, ASBC, 9650 Rockville Pike, Bethesda, Md. 20014.

Association for Women in Science: Room 1122, 1346 Connecticut Ave., N.W., Washington, D.C. 20036.

Sigma Delta Epsilon—Graduate Women in Science: c/o Federation of American Societies for Experimental Biology, 9650 Rockville Pike, Bethesda, Md. 20014.

Iota Sigma Pi—National Honor Society for Women in Chemistry: Anne T. Sherren, Department of Chemistry, North Central College, Naperville, Ill. 60540.

Society of Women Engineers: Mary Lou Barnas, Executive Secretary, Room 305, 345 East 47th St., New York, N.Y. 10017.

The following list includes most of the nation's major employers of chemists and/or chemical engineers. The organizations did not ask to be included in this directory and are not necessarily hiring chemists or chemical engineers at this time.

Chemicals

Aceto Chemical Co., 126-02 Northern Blvd., Flushing, N.Y. 11368
Airco, 85 Chestnut Ridge Rd., Montvale, N.J. 07645 (subsidiary of BOC International Ltd. of the U.K.)
Air Products & Chemicals, P.O. Box 538, Allentown, Pa. 18105
Akzona, P.O. Box 2930, Asheville, N.C. 28802 (affiliated with Akzo N.V. of the Netherlands)
Alcolac, 3440 Fairfield Rd., Baltimore, Md. 21226
Aldrich Chemical Co., 940 West St. Paul Ave., Milwaukee, Wis. 53233
Allied Chemical Corp., P.O. Box 2245R, Morristown, N.J. 07960
American Color & Chemical Corp., P.O. Box 32516, Charlotte, N.C. 28232 (subsidiary of North American Philips Corp. and Koppers Co.)
American Cyanamid Co., Berdan Ave., Wayne, N.J. 07470
American Enka Co., Enka, N.C. 28728 (division of Akzona)
American Hoechst Corp., Rte. 202-206 North, Somerville, N.J. 08876 (owned by Hoechst A.G. of West Germany)
American Hoechst Corp., industrial chemicals division, P.O. Box 268, Coventry, R.I. 02816
Amoco Chemicals Corp., 200 East Randolph Dr., Chicago, Ill. 60601 [subsidiary of Standard Oil Co. (Ind.)]
Ansul Co., 1 Stanton St., Marinette, Wis. 54143
Apex Chemical Co., 200 South First St., Elizabethport, N.J. 07206
Arco Chemical Co., 1500 Market St., Philadelphia, Pa. 19101 (division of Atlantic Richfield Co.)
Arizona Chemical Co., Berdan Ave., Wayne, N.J. 07470 (affiliate of American Cyanamid Co. and International Paper Co.)
Armak Co., P.O. Box 1805, Chicago, Ill. 60690 (subsidiary of Akzona)
Ashland Chemical Co., P.O. Box 2219, Columbus, Ohio 43216 (division of Ashland Oil)
AZS Corp., P.O. Box 93366, Atlanta, Ga. 30318
Badische Corp., Williamsburg, Va. 23185 (member of BASF Group of West Germany)
J. T. Baker Chemical Co., 600 North Broad St., Phillipsburg, N.J. 08865 (subsidiary of Richardson-Merrell)
BASF Wyandotte Corp., 100 Cherry Hill Rd., Parsippany, N.J. 07054 (owned by BASF A.G. of West Germany)
Beaunit Corp., 261 Madison Ave., New York, N.Y. 10016 (subsidiary of El Paso Natural Gas Co.)
Betz Laboratories, 4636 Somerton Rd., Trevose, Pa. 19047
Big Three Industries, P.O. Box 3047, Houston, Tex. 77001
Borden Chemical, 180 East Broad St., Columbus, Ohio 43215 (division of Borden)
Borg-Warner Corp., 200 South Michigan Ave., Chicago, Ill. 60604
Buckeye Cellulose Corp., P.O. Box 8407, Memphis, Tenn. 38108 (subsidiary of Procter & Gamble Co.)
Buckman Laboratories, 1256 North McLean Blvd., Memphis, Tenn. 38108
Cabot Corp., 125 High St., Boston, Mass. 02110
Calbiochem-Behring Corp., 10933 North Torrey Pines Rd., La Jolla, Calif. 92037 (subsidiary of American Hoechst Corp.)
Calgon Corp., P.O. Box 1346, Pittsburgh, Pa. 15230 (subsidiary of Merck & Co.)
Callery Chemical Co., Callery, Pa. 16024 (division of Mine Safety Appliances Co.)
Carus Corp., 1500 Eighth St., La Salle, Ill. 61301
Celanese Corp., 1211 Ave. of the Americas, New York, N.Y. 10036
CF Industries, Salem Lake Dr., Long Grove, Ill. 60047
Chemed Corp., 1200 DuBois Tower, Cincinnati, Ohio 45202 (owned 90% by W. R. Grace & Co.)
Chemetron Corp., 111 East Wacker Dr., Chicago, Ill. 60601 (subsidiary of Allegheny Ludlum Industries)
Chemplex Co., 3100 Gold Rd., Rolling Meadows, Ill. 60008 (jointly owned by American Can Co. and Getty Oil Co.)
Chevron Chemical Co., 575 Market St., San Francisco, Calif. 94105 (subsidiary of Standard Oil Co. of California)
Ciba-Geigy Corp., 444 Saw Mill River Rd., Ardsley, N.Y. 10502 (owned by Ciba-Geigy Ltd. of Switzerland)
Cincinnati Milacron, 4701 Marburg Ave., Cincinnati, Ohio 45209
City Chemical Corp., 132 West 22nd St., New York, N.Y. 10011
Clorox Co., 1221 Broadway, Oakland, Calif. 94612 (owned 15% by Henkel KGaA of West Germany)
Columbia Nitrogen Corp., P.O. Box 1483, Augusta, Ga. 30903 (owned by DSM of the Netherlands)
Conoco Chemicals Co., P.O. Box 2197, Houston, Tex. 77001 (division of Conoco)
Cooperative Farm Chemicals Association, P.O. Box 308, Lawrence, Kan. 66044 (owned by Farmland Industries and Missouri Farmers Association)
Copolymer Rubber & Chemical Corp., P.O. Box 2591, Baton Rouge, La. 70821
Cordova Chemical of Michigan, 500 Agard Rd., Muskegon, Mich. 49445
Crompton & Knowles Corp., chemicals group, Rte. 208, Fair Lawn, N.J. 07410
Cyclo Chemicals Corp., 7500 North West 66th St., Miami, Fla. 33166
Dart Industries, P.O. Box 3157, Terminal Annex, Los Angeles, Calif. 90051
Daubert Chemical Co., 1200 Jorie Blvd., Oak Brook, Ill. 60521
Dearborn Chemical, 300 Genesee St., Lake Zurich, Ill. 60047 (division of Chemed Corp.)
Detrex Chemical Industries, 4000 Town Ctr., Southfield, Mich. 48075
Dexter Chemical Corp., 845 Edgewater Rd., Bronx, N.Y. 10474
Dexter Corp., 1 Elm St., Windsor Locks, Conn. 06096
Diamond Shamrock Corp., 2300 Southland Ctr., Dallas, Tex. 75201
Diversey Corp., 100 West Monroe St., Chicago, Ill. 60603
Dixie Chemical Co., P.O. Box 13410, Houston, Tex. 77019
Dow Chemical U.S.A., 2020 Dow Ctr., Midland, Mich. 48640
Dow Corning Corp., P.O. Box 1767, Midland, Mich. 48640 (jointly owned by Dow Chemical Co. and Corning Glass Works)
Drew Chemical Corp., 1 Drew Chemical Plaza, Boonton, N.J. 07005 (subsidiary of U.S. Filter Corp.)
DuBois Chemicals, 1314 DuBois Tower, Cincinnati, Ohio 45202 (division of Chemed Corp.)
E. I. du Pont de Nemours & Co., 1007 Market St., Wilmington, Del. 19898
Eagle-Picher Industries, 580 Walnut St., Cincinnati, Ohio 45202
Eastern Chemical division, P.O. Box 2500, Hauppauge, N.Y. 11787 (division of Guardian Chemical Corp.)
Eastman Chemical Products, P.O. Box 431, Kingsport, Tenn 37662 (subsidiary of Eastman Kodak Co.)
Economics Laboratory, 370 Wabasha St., St. Paul, Minn. 55102
Emery Industries, 1300 Carew Tower, Cincinnati, Ohio 45202 (subsidiary of National Distillers & Chemical Corp.)
Emkay Chemical Co., 319–325 Second St., Elizabeth, N.J. 07206
Enserch Corp., 301 South Harwood St., Dallas, Tex. 75201
Essex Chemical Corp., 1401 Broad St., Clifton, N.J. 07015
Ethyl Corp., 330 South Fourth St., Richmond, Va. 23219
Exxon Chemical Co., 1251 Ave. of the Americas, New York, N.Y. 10020 (division of Exxon Corp.)
Fairmount Chemical Co., 117 Blanchard St., Newark, N.J. 07105
Farmland Industries, P.O. Box 7305, Kansas City, Mo. 64116
Ferro Corp., 1 Erieview Plaza, Cleveland, Ohio 44114
Fiber Industries, P.O. Box 32414, Charlotte, N.C. 28232 (jointly owned by Celanese Corp. and Imperial Chemical Industries of the U.K.)
Filtrol Corp., 5959 West Century Blvd., Los Angeles, Calif. 90045 (subsidiary of U.S. Filter Corp.)
Firestone Plastics Co., P.O. Box 699, Pottstown, Pa. 19464 (division of Firestone Tire & Rubber Co.)
First Chemical Corp., P.O. Box 1427, Pascagoula, Miss. 39567 (subsidiary of First Mississippi Corp.)
Fisher Scientific Co., chemical manufacturing division, 711 Forbes Ave., Pittsburgh, Pa. 15219
FMC Corp., 200 East Randolph Dr., Chicago, Ill. 60601
FMC Corp., industrial chemical group, 2000 Market St., Philadelphia, Pa. 19103
Foster Grant Products Corp., 289 North Main St., Leominster, Mass. 01453 (subsidiary of American Hoechst Corp.)
Fritzsche Dodge & Olcott, 76 Ninth Ave., New York, N.Y. 10011
GAF Corp., 140 West 51st St., New York, N.Y. 10020
General Electric Co., engineered materials group, 500 West Wilson Bridge Rd., Columbus, Ohio 43285
General Electric Co., plastics business division, 1 Plastics Ave., Pittsfield, Mass. 01201
General Latex & Chemical Corp., 666 Main St., Cambridge, Mass. 02139
General Tire & Rubber Co., chemical/plastics division, 1 General St., Akron, Ohio 44329
Georgia-Pacific Corp., 900 South West Fifth Ave., Portland, Ore. 97204
Givaudan Corp., 100 Delawanna Ave., Clifton, N.J. 07014
Glyco Chemicals, P.O. Box 700, Greenwich, Conn. 06830
B. F. Goodrich Co., chemical group, 6100 Oak Tree Blvd., Cleveland, Ohio 44131
Goodyear Tire & Rubber Co., chemical division, 1144 East Market St., Akron, Ohio 44316
W. R. Grace & Co., 1114 Ave. of the Americas, New York, N.Y. 10036 (owned 28% by Flick Group of West Germany)
Great Lakes Carbon Corp., 299 Park Ave., New York, N.Y. 10017
Great Lakes Chemical Corp., P.O. Box 2200, West Lafayette, Ind. 47906
Great Salt Lake Minerals & Chemicals Corp., P.O. Box 1190, Ogden, Utah 84402 (subsidiary of Gulf Resources & Chemical Corp.)
Grow Group, 200 Park Ave., New York, N.Y. 10017
GTE Sylvania, 1 Stamford Forum, Stamford, Conn. 06904 (subsidiary of General Telephone & Electronics Corp.)
Guardian Chemical Corp., 230 Marcus Blvd., Hauppauge, N.Y. 11787
Gulf Oil Chemicals Co., P.O. Box 3766, Houston, Tex. 77001 (division of Gulf Oil Corp.)
Hach Chemical Co., P.O. Box 389, Loveland, Colo. 80537
C. P. Hall Co., 7300 South Central Ave., Chicago, Ill. 60638
Harshaw Chemical Co., 1945 East 97th St., Cleveland, Ohio 44106 (subsidiary of Gulf Oil Corp.)
Henkel Corp., 4620 West 77th St., Minneapolis, Minn. 55435 (owned by Henkel KGaA of West Germany)
Hercules, 910 Market St., Wilmington, Del. 19899
Hilton-Davis Chemical Co., 2235 Langdon Farm Rd., Cincinnati, Ohio 45237 (division of Sterling Drug)
Hitco, 1600 West 135th St., Gardena, Calif. 90249 (subsidiary of Armco)
Hoechst Fibers Industries, 1515 Broadway, New York, N.Y. 10036 (division of American Hoechst Corp.)
Hooker Chemical Co., P.O. Box 4289, Houston, Tex. 77210 (subsidiary of Occidental Petroleum Corp.)
Humko Sheffield Chemical, P.O. Box 398, Memphis, Tenn. 38101 (division of Kraft)
Humphrey Chemical Co., Devine St., North Haven, Conn. 06473
Philip A. Hunt Chemical Corp., P.O. Box 800, Palisades Park, N.J. 07650 (partly owned by Turner & Newall Ltd. of the U.K.)
ICI Americas, Concord Pike & New Murphy Rd., Wilmington, Del. 19897 (owned by Imperial Chemical Industries Ltd. of the U.K.)
IMC Chemical Group, 666 Garland Pl., Des Plaines, Ill. 60016 (subsidiary of International Minerals & Chemical Corp.)
Inmont Corp., 1133 Ave. of the Americas, New York, N.Y. 10036 (subsidiary of Carrier Corp.)

Directory

International Flavors & Fragrances, 521 West 57th St., New York, N.Y. 10019
International Minerals & Chemical Corp., 2315 Sanders Rd., Northbrook, Ill. 60062
Jefferson Chemical Co., P.O. Box 430, Bellaire, Tex. 77401 (subsidiary of Texaco)
Kaiser Chemicals, 300 Lakeside Dr., Oakland, Calif. 94643 (division of Kaiser Aluminum & Chemical Corp.)
Kay-Fries, Stony Point, N.Y. 10980 (owned 75% by Dynamit Nobel A.G. of West Germany and 25% by Tennants Consolidated Ltd. of the U.K.)
Kerr-McGee Chemical Corp., Kerr-McGee Ctr., Oklahoma City, Okla. 73125 (subsidiary of Kerr-McGee Corp.)
Koppers Co., Koppers Bldg., Pittsburgh, Pa. 15219
Lawter Chemicals, 990 Skokie Blvd., Northbrook, Ill. 60062
Liquid Air Corp. of North America, 405 Lexington Ave., New York, N.Y. 10017
Liquid Carbonic Corp., 135 South La Salle St., Chicago, Ill. 60603 (subsidiary of Houston Natural Gas Corp.)
Lithium Corp. of America, 449 North Cox Rd., Gastonia, N.C. 28052 (subsidiary of Gulf Resources & Chemical Corp.)
Lonza, 22-10 Rte. 208, Fair Lawn, N.J. 07410 (owned by Lonza A.G. of Switzerland)
Lubrizol Corp., 29400 Lakeland Blvd., Wickliffe, Ohio 44092
MacKenzie Chemical Works, 1 Cordello Ave., Central Islip, N.Y. 11722
MacKenzie Chemical Works of Louisiana, P.O. Box 219, Bush, La. 70431
Mallinckrodt, P.O. Box 5840, St. Louis, Mo. 63134
MCB Reagents, 2909 Highland Ave., Norwood, Ohio 45212 (associate of E. Merck of West Germany)
Millmaster Onyx Group, 99 Park Ave., New York, N.Y. 10016 (subsidiary of Gulf Oil Corp.)
Mobay Chemical Corp., Penn Lincoln Pkwy. West, Pittsburgh, Pa. 15205 (owned by Bayer A.G. of West Germany)
Mobil Chemical Co., 150 East 42nd St., New York, N.Y. 10017 (division of Mobil Oil Corp.)
Monsanto Co., 800 North Lindbergh Blvd., St. Louis, Mo. 63166
Morton Chemical Division, 2 North Riverside Plaza, Chicago, Ill. 60606 (division of Morton-Norwich Products)
M&T Chemicals, Woodbridge Rd. & Randolph Ave., Rahway, N.J. 07065 (subsidiary of Société Nationale Elf-Aquitaine of France)
Nalco Chemical Co., 2901 Butterfield Rd., Oak Brook, Ill. 60521
National Distillers & Chemical Corp., 99 Park Ave., New York, N.Y. 10016
National Starch & Chemical Corp., 10 Finderne Ave., Bridgewater, N.J. 08807 (owned by Unilever of the U.K.)
Neville Chemical Co., 1938 Neville Island, Pittsburgh, Pa. 15225
New England Nuclear Corp., 549 Albany St., Boston, Mass. 02118
NL Chemicals, P.O. Box 700, Hightstown, N.J. 08520 (division of NL Industries)
Northern Petrochemical Co., 2223 Dodge St., Omaha, Neb. (subsidiary of Northern Natural Gas Co.)
Norton Chemical Process Products division, P.O. Box 350, Akron, Ohio 44309 (division of Norton Co.)
Noury Chemical Corp., Rte. 78, Burt, N.Y. 14028 (subsidiary of Armak Co.)
Olin Corp., 120 Long Ridge Rd., Stamford, Conn. 06904
Oxirane International, 4550 Post Oak Place Dr., Houston, Tex. 77027 (jointly owned by Atlantic Richfield Co. and Halcon International)
Ozark-Mahoning Co., 1870 South Boulder Ave., Tulsa, Okla. 74119 (subsidiary of Pennwalt Corp.)
Pacific Resins & Chemicals, 1754 Thorne Rd., Tacoma, Wash. 98421 (subsidiary of Univar Corp.)
Pantasote, 26 Jefferson St., Passaic, N.J. 07055
Pearsall Chemical Corp., P.O. Box 437, Houston, Tex. 77001
Penick Corp., 1050 Wall St. West, Lyndhurst, N.J. 07071 (unit of CPC International)
Pennwalt Corp., 3 Pkwy., Philadelphia, Pa. 19102
Petro-Tex Chemical Corp., 8600 Park Place Blvd., Houston, Tex. 77017 (subsidiary of Tenneco Oil Co.)
Pfanstiehl Laboratories, 1219 Glen Rock Ave., Waukegan, Ill. 60085
Pfister Chemical, Linden Ave., Ridgefield, N.J. 07657
Phillips Fibers Corp., P.O. Box 66, Greenville, S.C. 29602 (subsidiary of Phillips Petroleum Co.)
Pierce Chemical Co., P.O. Box 117, Rockford, Ill. 61105
PPG Industries, 1 Gateway Ctr., Pittsburgh, Pa. 15222
PQ Corp., P.O. Box 840, Valley Forge, Pa. 19482
Publicker Industries, 777 West Putnam Ave., Greenwich, Conn. 06830
PVO International, World Trade Ctr., San Francisco, Calif. 94111
Quaker Oats Co., chemicals division, P.O. Box 3514, Chicago, Ill. 60654
Reichhold Chemicals, 523 North Broadway, White Plains, N.Y. 10603
Reilly Tar & Chemical Corp., 151 North Delaware St., Indianapolis, Ind. 46204
Rexene Co., P.O. Box 665, Paramus, N.J. 07652 (division of El Paso Polyolefins Co.)
Rhône-Poulenc, 600 Madison Ave., New York, N.Y. 10022 (subsidiary of Rhône-Poulenc S.A. of France)
Richardson Co., 2400 East Devon Ave., Des Plaines, Ill. 60018
Rilsan Corp., 139 Harristown Rd., Glen Rock, N.J. 07452 (owned by ATO Chimie S.A. of France)
Ritter International, 4001 Goodwin Ave., Los Angeles, Calif. 90039
Rohm & Haas Co., Independence Mall West, Philadelphia, Pa. 19105
R.S.A. Corp., 690 Saw Mill River Rd., Ardsley, N.Y. 10502
Rubicon Chemicals, P.O. Box 517, Geismar, La. 70734 (jointly owned by Imperial Chemical Industries of the U.K. and by Uniroyal)
Sandoz, Rte. 10, East Hanover, N.J. 07936 (owned by Sandoz A.G. of Switzerland)
SCM Corp., 299 Park Ave., New York, N.Y. 10017
Shell Chemical Co., P.O. Box 2463, Houston, Tex. 77001 (division of Shell Oil Co.)
Shepherd Chemical Co., 4900 Beech St., Cincinnati, Ohio 45212
Stauffer Chemical Co., Nyala Farm Rd., Westport, Conn. 06880
Stepan Chemical Co., Edens & Winnetka Rd., Northfield, Ill. 60093
Sterling Organics, 90 Park Ave., New York, N.Y. 10016 (division of Sterling Drug)
Sun Chemical Corp., 200 Park Ave., New York, N.Y. 10017
Sybron Corp., 1100 Midtown Tower, Rochester, N.Y. 14604
Tenneco Chemicals, Park 80 Plaza West, Saddle Brook, N.J. 07662 (division of Tenneco)
Thompson-Hayward Chemical Co., 5200 Speaker Rd., Kansas City, Kan. 66110 (subsidiary of North American Philips Corp.)
Toms River Chemical Corp., P.O. Box 71, Toms River, N.J. 08753 (jointly owned by Ciba-Geigy Corp. and Sandoz A.G. of Switzerland)
Union Carbide Corp., 270 Park Ave., New York, N.Y. 10017
Union Chemicals division, 1345 North Meacham Rd., Schaumburg, Ill. 60196 (division of Union Oil Co. of California)
Uniroyal Chemical, Spencer St., Naugatuck, Conn. 06770 (division of Uniroyal)
United Nuclear Corp., 7700 Leesburg Pike, Falls Church, Va. 22043 (subsidiary of UNC Resources)
U.S. Borax & Chemical Corp., 3075 Wilshire Blvd., Los Angeles, Calif. 90010 (owned by Rio Tinto Zinc Corp. of the U.K.)
U.S. Industrial Chemicals Co., 99 Park Ave., New York, N.Y. 10016 (division of National Distillers & Chemical Corp.)
USM Corp., 426 Colt Hwy., Farmington, Conn. 06032 (subsidiary of Emhart Corp.)
USS Chemicals, 600 Grant St., Pittsburgh, Pa. 15230 (division of U.S. Steel Corp.)
USS Novamont, 600 Grant St., Pittsburgh, Pa. 15230 (subsidiary of U.S. Steel Corp.)
Vanderbilt Chemical Corp., 30 Winfield St., Norwalk, Conn. 06855 (subsidiary of R. T. Vanderbilt Co.)
Velsicol Chemical Corp., 341 East Ohio St., Chicago, Ill. 60611 (subsidiary of Northwest Industries)
Ventron Corp., Congress St., Beverly, Mass. 01915 (division of Thiokol Corp.)
Virginia Chemicals, 3340 West Norfolk Rd., Portsmouth, Va. 23703
Vistron Corp., Midland Bldg., Cleveland, Ohio 44115 (subsidiary of Standard Oil Co. (Ohio))
Vulcan Materials Co., P.O. Box 7497, Birmingham, Ala. 35223
West Agro Chemical, P.O. Box 1386, Shawnee Mission, Kan. 66222 (subsidiary of West Chemical Products)
West Chemical Products, 8 Freer St., Lynbrook, N.Y. 11563
Williams Cos., 1 Williams Ctr., Tulsa, Okla. 74103
Witco Chemical Corp., 277 Park Ave., New York, N.Y. 10017

Drugs

Abbott Laboratories, 1400 Sheridan Rd., North Chicago, Ill. 60064
American Home Products Corp., 685 Third Ave., New York, N.Y. 10017
Ames division, P.O. Box 70, Elkhart, Ind. 46515 (division of Miles Laboratories)
Armour Pharmaceutical Co., P.O. Box 1849, Scottsdale, Ariz. 85251 (subsidiary of Revlon)
Ayerst Laboratories, 685 Third Ave., New York, N.Y. 10017 (division of American Home Products Corp.)
Baxter Travenol Laboratories, 1 Baxter Pkwy., Deerfield, Ill. 60015
Breon Laboratories, 90 Park Ave., New York, N.Y. 10016 (subsidiary of Sterling Drug)
Bristol Laboratories, P.O. Box 657, Syracuse, N.Y. 13201 (division of Bristol-Myers Co.)
Bristol-Myers Co., 345 Park Ave., New York, N.Y. 10022
Burroughs Wellcome Co., 3030 Cornwallis Rd., Research Triangle Park, N.C. 27709 (owned by Wellcome Foundation Ltd. of the U.K.)
Carter-Wallace, 767 Fifth Ave., New York, N.Y. 10022
Ciba-Geigy Corp., pharmaceuticals division, 556 Morris Ave., Summit, N.J. 07901 (owned by Ciba-Geigy A.G. of Switzerland)
Cooper Laboratories, 5 Palo Alto Sq., Palo Alto, Calif. 94304
Cutter Laboratories, Fourth & Parker St., Berkeley, Calif. 94710 (owned by Bayer A.G. of West Germany)
Dorsey Laboratories, P.O. Box 83288, Lincoln, Neb. 68501 (division of Sandoz of Switzerland)
Endo Laboratories, 1000 Stewart Ave., Garden City, N.Y. 11530 (subsidiary of Du Pont)
Ethicon, U.S. Hwy. 22, Somerville, N.J. 08876 (subsidiary of Johnson & Johnson)
Ganes Chemicals, 1114 Ave. of the Americas, New York, N.Y. 10036 (owned by Siegfried A.G. of Switzerland)
Hoechst-Roussel Pharmaceuticals, Rte. 202-206 North, Somerville, N.J. 08876 (subsidiary of American Hoechst)
Hoffmann-La Roche, 340 Kingsland St., Nutley, N.J. 07110 (member of Hoffmann-La Roche Group of Switzerland)
ICN Pharmaceuticals, 2727 Campus Dr., Irvine, Calif. 92664
Inolex Pharmaceutical, 2600 Bond St., Park Forest South, Ill. 60466 (division of Inolex Corp.)
Lederle Laboratories, North Middletown Rd., Pearl River, N.Y. 10965 (division of American Cyanamid Co.)
Eli Lilly & Co., 740 South Alabama St., Indianapolis, Ind. 46206
Marion Laboratories, 10236 Bunker Ridge Rd., Kansas City, Mo. 64137
McNeil Laboratories, 500 Office Center Dr., Fort Washington, Pa. 19034 (affiliate of Johnson & Johnson)
Mead Johnson & Co., 2404 Pennsylvania St., Evansville, Ind. 47721 (subsidiary of Bristol-Myers Co.)
Merck & Co., P.O. Box 2000, Rahway, N.J. 07065
Merrell-National Laboratories, 2110 East Galbraith Rd., Cincinnati, Ohio 45215 (division of Richardson-Merrell)
Miles Laboratories, P.O. Box 40, Elkhart, Ind. 46515 (owned by Bayer A.G. of West Germany)
Morton-Norwich Products, 110 North Wacker Dr., Chicago, Ill. 60606
Norwich-Eaton Pharmaceuticals, 17 Eaton Ave., Norwich, N.Y. 13815 (division of Morton-Norwich Products)
Organon, 375 Mt. Pleasant Ave., West Orange, N.J. 07052 (division of Akzona)
Ortho Pharmaceutical Corp., Raritan, N.J. 08869 (subsidiary of Johnson & Johnson)
Parke-Davis, P.O. Box 118, G.P.O., Detroit, Mich. 48232 (division of Warner-Lambert Co.)
Pfizer, 235 East 42nd St., New York, N.Y. 10017

Philips Roxane Laboratories, 330 Oak St., Columbus, Ohio 43216 (division of North American Philips Corp.)
Purdue Frederick Co., 50 Washington St., Norwalk, Conn. 06856
Rachelle Laboratories, 700 Henry Ford Ave., Long Beach, Calif. 90801 (subsidiary of International Rectifier Corp.)
Richardson-Merrell, 10 Westport Rd., Wilton, Conn. 06897
Riker Laboratories, 19901 Nordhoff St., Northridge, Calif. 91324 (subsidiary of 3M Co.)
A.H. Robins Co., 1407 Cummings Dr., Richmond, Va. 23220
Wm. H. Rorer, 500 Virginia Dr., Fort Washington, Pa. 19034 (subsidiary of Rorer Group)
Sandoz Pharmaceuticals, Rte. 10, East Hanover, N.J. 07936 (division of Sandoz of Switzerland)
R. P. Scherer Corp., 9425 Grinnell Ave., Detroit, Mich. 48213
Schering-Plough Corp., Galloping Hill Rd., Kenilworth, N.J. 07033
G. D. Searle & Co., P.O. Box 1045, Skokie, Ill. 60076
SmithKline Corp., 1500 Spring Garden St., Philadelphia, Pa. 19101
Squibb Corp., 40 West 57th St., New York, N.Y. 10019
Sterling Drug, 90 Park Ave., New York, N.Y. 10016
Stuart Pharmaceuticals, 3411 Silverside Rd., Wilmington, Del. 19897 (division of ICI Americas)
Syntex Laboratories, 3401 Hillview Ave., Palo Alto, Calif. 94304
Upjohn Co., 7000 Portage Rd., Kalamazoo, Mich. 49001
USV Laboratories, 1 Scarsdale Rd., Tuckahoe, N.Y. 10707 (division of Revlon)
Wallace Laboratories, Half Acre Rd., Cranbury, N.J. 08512 (division of Carter-Wallace)
Warner-Lambert Co., 201 Tabor Rd., Morris Plains, N.J. 07950
Westwood Pharmaceuticals, 468 Dewitt St., Buffalo, N.Y. 14213 (division of Bristol-Myers Co.)
Winthrop Laboratories, 90 Park Ave., New York, N.Y. 10016 (division of Sterling Drug)
Wyeth Laboratories, P.O. Box 8299, Philadelphia, Pa. 19101 (division of American Home Products Corp.)

Personal-care products

Alberto-Culver Co., 2525 Armitage Ave., Melrose Park, Ill. 60160
Avon Products, 9 West 57th St., New York, N.Y. 10019
Chesebrough-Ponds, 33 Benedict Pl., Greenwich, Conn. 06830
Clairol, 345 Park Ave., New York, N.Y. 10022 (subsidiary of Bristol-Myers Co.)
Colgate-Palmolive Co., 302 Park Ave., New York, N.Y. 10022
Fabergé, 1345 Ave. of the Americas, New York, N.Y. 10019
Max Factor & Co., 1655 McCadden Pl., Hollywood, Calif. 90028 (subsidiary of Norton Simon)
Gillette Co., Prudential Tower Bldg., Boston, Mass. 02199
Andrew Jergens Co., 2535 Spring Grove Ave., Cincinnati, Ohio 45214 (subsidiary of American Brands)
Lever Brothers Co., 390 Park Ave., New York, N.Y. 10022 (owned by Unilever of the U.K.)
Noxell Corp., P.O. Box 1799, Baltimore, Md. 21203
Procter & Gamble Co., P.O. Box 599, Cincinnati, Ohio 45201
Purex Corp., 5101 Clark Ave., Lakewood, Calif. 90712
Revlon, 767 Fifth Ave., New York, N.Y. 10022
Shulton, 697 U.S. Hwy. 46, Clifton, N.J. 07015 (subsidiary of American Cyanamid Co.)

Coatings

Baltimore Paint & Chemical Co., 2325 Hollins Ferry Rd., Baltimore, Md. 21230 (subsidiary of Dutch Boy)
Carboline Co., 350 Hanley Industrial Ct., St. Louis, Mo. 63144
Cook Industrial Coatings, P.O. Box 389, Kansas City, Mo. 64141
DeSoto, 1700 South Mt. Prospect Rd., Des Plaines, Ill. 60018
Dutch Boy, 500 Central Ave., Northfield, Ill. 60093
Glidden Coatings & Resins, 900 Union Commerce Tower, Cleveland, Ohio 44115 (division of SCM Corp.)
Guardsman Chemicals, 1350 Steele Ave., S.W., Grand Rapids, Mich. 49507
Lilly Industrial Coatings, P.O. Box 946, Indianapolis, Ind. 46206
Benjamin Moore & Co., 51 Chestnut Ridge Rd., Montvale, N.J. 07645
O'Brien Corp., 450 East Grand Ave., South San Francisco, Calif. 94080
Porter Paint Co., 13th & Walnut St., Louisville, Ky. 40201
Pratt & Lambert, P.O. Box 22, Buffalo, N.Y. 14240
Sherwin-Williams Co., 101 Prospect Ave., N.W., Cleveland, Ohio 44115
Valspar Corp., 1101 Third St. South, Minneapolis, Minn. 55415

Petroleum

Amerada Hess Corp., 1 Hess Plaza, Woodbridge, N.J. 07095
American Petrofina, P.O. Box 2159, Dallas, Tex. 75221
Ashland Oil, P.O. Box 391, Ashland, Ky. 41101
Atlantic Richfield Co., 515 South Flower St., Los Angeles, Calif. 90071
Cities Service Co., P.O. Box 300, Tulsa, Okla. 74102

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Clark Oil & Refining Corp., 8530 West National Ave., Milwaukee, Wis. 53227
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Exxon Corp., 1251 Ave. of the Americas, New York, N.Y. 10020
Getty Oil Co., 3810 Wilshire Blvd., Los Angeles, Calif. 90054
Gulf Oil Corp., P.O. Box 1166, Pittsburgh, Pa. 15230
Kerr-McGee Corp., Kerr-McGee Ctr., Oklahoma City, Okla. 73125
Marathon Oil Co., 539 South Main St., Findlay, Ohio 45840
Mobil Oil Corp., 150 East 42nd St., New York, N.Y. 10017
Murphy Oil Corp., 200 Jefferson Ave., El Dorado, Ark. 71730
Occidental Petroleum Corp., 10889 Wilshire Blvd., Los Angeles, Calif. 90024
Pennzoil Co., P.O. Box 2967, Houston, Tex. 77001
Phillips Petroleum Co., Phillips Bldg., Bartlesville, Okla. 74004
Quaker State Oil Refining Corp., P.O. Box 989, Oil City, Pa. 16301
Shell Oil Co., 1 Shell Plaza, Houston, Tex. 77001
Standard Oil Co. of California, 225 Bush St., San Francisco, Calif. 94104
Standard Oil Co. (Ind.), 200 East Randolph Dr., Chicago, Ill. 60601
Standard Oil Co. (Ohio), Midland Bldg., Cleveland, Ohio 44115 (owned 52% by BP Ltd. of England)
Sun Co., 240 Radnor-Chester Rd., St. Davids, Pa. 19087
Tenneco, P.O. Box 2511, Houston, Tex. 77001
Texaco, 2000 Westchester Ave., White Plains, N.Y. 10650
Union Oil Co. of California, 461 South Boylston St., Los Angeles, Calif. 90017

Rubber

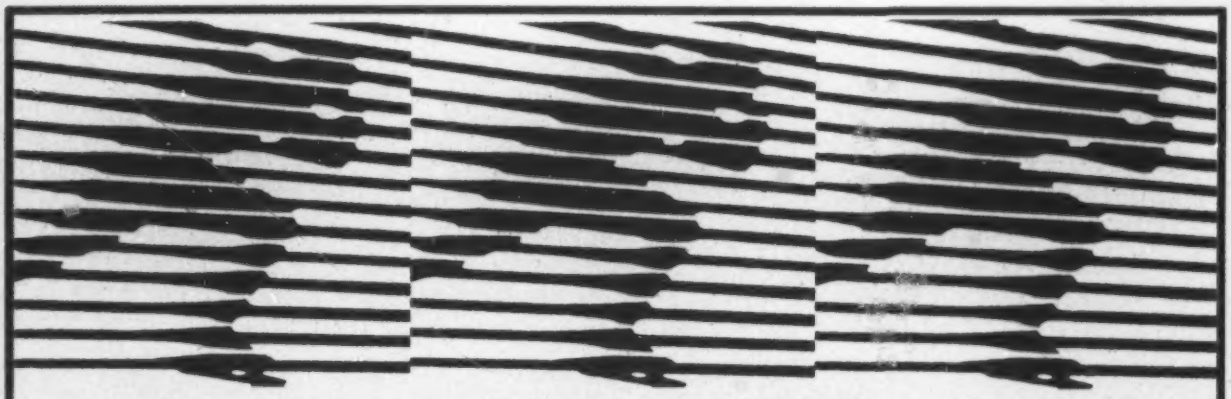
American Biltrite, 575 Technology Sq., Cambridge, Mass. 02139
Armstrong Rubber Co., 500 Sargent Dr., New Haven, Conn. 06507
Carlisle Corp., 511 Walnut St., Cincinnati, Ohio 45202
Cooper Tire & Rubber Co., Lima & Western Ave., Findlay, Ohio 45840
Firestone Tire & Rubber Co., 1200 Firestone Pkwy., Akron, Ohio 44317
Gates Rubber Co., 999 South Broadway, Denver, Colo. 80217
General Tire & Rubber Co., 1 General St., Akron, Ohio 44329
B. F. Goodrich Co., 500 South Main St., Akron, Ohio 44318
Goodyear Tire & Rubber Co., 1144 East Market St., Akron, Ohio 44316
Mohawk Rubber Co., 500 Executive Pkwy., Hudson, Ohio 44236
St. Clair Rubber Co., 107 Clifford St., Detroit, Mich. 48226
Uniroyal, Oxford Management & Research Ctr., Middlebury, Conn. 06749

Paper and forest products

Bemis Co., 800 Northstar Ctr., Minneapolis, Minn. 55402
Boise Cascade Corp., P.O. Box 50, Boise, Idaho 83728
Champion International Corp., 1 Landmark Sq., Stamford, Conn. 06921
Consolidated Papers, First Ave. North, Wisconsin Rapids, Wis. 54494
Container Corp. of America, 1 First National Plaza, Chicago, Ill. 60603 (subsidiary of Mobil Oil Corp.)
Continental Forest Industries, Greenwich Office Park 2, Greenwich, Conn. 06830 (member of Continental Group)
Crown Zellerbach Corp., 1 Bush St., San Francisco, Calif. 94104
Diamond International Corp., 733 Third Ave., New York, N.Y. 10017
Georgia-Pacific Corp., 900 South West Fifth Ave., Portland, Ore. 97204
Great Northern Nekoosa Corp., 75 Prospect St., Stamford, Conn. 06901
Hammermill Paper Co., 1442 East Lake Rd., Erie, Pa. 16533
Inland Container Corp., 151 North Delaware St., Indianapolis, Ind. 46206
International Paper Co., P.O. Box 973, Wall St. Station, New York, N.Y. 10005
ITT Rayonier, 1177 Summer St., Stamford, Conn. 06904 (subsidiary of International Telephone & Telegraph Corp.)
Kimberly-Clark Corp., 128 North Lake St., Neenah, Wis. 54956
Mead Corp., Courthouse Plaza, Northeast, Dayton, Ohio 45463
Potlatch Corp., 1 Maritime Plaza, San Francisco, Calif. 94111
Proctor & Gamble Paper Products Co., P.O. Box 866, Oxnard, Calif. 93032
St. Regis Paper Co., P.O. Box 4239, Grand Central Station, New York, N.Y. 10017
Scott Paper Co., Scott Plaza, Philadelphia, Pa. 19113
Union Camp Corp., 1600 Valley Rd., Wayne, N.J. 07470
Westvaco Corp., 299 Park Ave., New York, N.Y. 10017
Weyerhaeuser Co., Tacoma, Wash. 98477

Metals and minerals

Allegheny Ludlum Industries, 2 Oliver Plaza, Pittsburgh, Pa. 15222



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Allied-Kelite Products division, 2400 East Devon Ave., Des Plaines, Ill. 60018 (division of Richardson Co.)
Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh, Pa. 15219
Amax, Amax Ctr., Greenwich, Conn. 06830
Anaconda Co., 555—17th St., Denver, Colo. 80271 (subsidiary of Atlantic Richfield Co.)
Armco, P.O. Box 600, Middletown, Ohio 45043
Asarco, 120 Broadway, New York, N.Y. 10005
Basic Chemicals, 845 Hanna Bldg., Cleveland, Ohio 44115 (division of Basic)
Bethlehem Steel Corp., 701 East Third St., Bethlehem, Pa. 18016
Carpenter Technology Corp., 150 West Bern St., Reading, Pa. 19603
Cerro Metal Products, P.O. Box 388, Bellefonte, Pa. 16823 (division of Marmon Group)
Chromalloy American Corp., 120 South Central Ave., St. Louis, Mo. 63105
Climax Molybdenum Co., 1 Greenwich Plaza, Greenwich, Conn. 06830 (division of Amax)
Colt Industries, P.O. Box 226, Midland, Pa. 15059
Copperweld Bimetallics division, 100 Ninth St., Glasgow, Pa. 15045 (division of Copperweld Corp.)
Cyclops Corp., 650 Washington Rd., Pittsburgh, Pa. 15228
Duval Corp., P.O. Box 2967, Houston, Tex. 77001 (subsidiary of Pennzoil Co.)
Engelhard Minerals & Chemicals Corp., 1221 Ave. of the Americas, New York, N.Y. 10020
Fansteel, 1 Tantalum Pl., North Chicago, Ill. 60064
Foote Mineral Co., Rte. 100, Exton, Pa. 19341 (owned 90.8% by Newmont Mining Corp.)
Freeport Minerals Co., 200 Park Ave., New York, N.Y. 10017
Gulf Resources & Chemical Corp., 1100 Milam Bldg., Houston, Tex. 77002
Handy & Harman, 850 Third Ave., New York, N.Y. 10022
Howmet Aluminum Corp., 475 Steamboat Rd., Greenwich, Conn. 06830 (affiliate of Pechiney Ugine Kuhlmann Corp. of France)
Inland Steel Co., 30 West Monroe St., Chicago, Ill. 60603
Interlake, 135th St. & Perry Ave., Chicago, Ill. 60627
International Nickel Co., 1 New York Plaza, New York, N.Y. 10004
Jones & Laughlin Steel Corp., 1000 East Station, Aliquippa, Pa. 15001 (subsidiary of LTV Corp.)
Kaiser Aluminum & Chemical Corp., 300 Lakeside Dr., Oakland, Calif. 94643
Kaiser Steel Corp., 300 Lakeside Dr., Oakland, Calif. 94643 (affiliate of Kaiser Industries Corp.)
Kawecki Berylco Industries, P.O. Box 1462, Reading, Pa. 19603 (subsidiary of Cabot Special Metals Corp.)
Kennametal, P.O. Box 346, Latrobe, Pa. 15650
Kennecott Copper Corp., 161 East 42nd St., New York, N.Y. 10017
Martin Marietta Aluminum, 6801 Rockledge Dr., Bethesda, Md. 20034 (subsidiary of Martin Marietta Corp.)
Matthey Bishop, 4 Malin Rd., Malvern, Pa. 19355 (affiliate of Johnson Matthey & Co. of the U.K.)
McLouth Steel Corp., 300 South Livernois Ave., Detroit, Mich. 48209
Molycorp, 6 Corporate Park Dr., White Plains, N.Y. 10604 (subsidiary of Union Oil Co. of California)
National Steel Corp., 2800 Grant Bldg., Pittsburgh, Pa. 15219
New Jersey Zinc Co., 65 East Elizabeth Ave., Bethlehem, Pa. 18018 (division of Gulf & Western Industries)
Phelps Dodge Refining Corp., 300 Park Ave., New York, N.Y. 10022 (subsidiary of Phelps Dodge Corp.)
Republic Steel Corp., P.O. Box 6778, Cleveland, Ohio 44101
Revere Copper & Brass, 605 Third Ave., New York, N.Y. 10016 (owned 33% by Asarco)
Reynolds Metals Co., P.O. Box 27003, Richmond, Va. 23261
St. Joe Minerals Corp., 250 Park Ave., New York, N.Y. 10017
Teledyne Wah Chang Albany, P.O. Box 460, Albany, Ore. 97321 (subsidiary of Teledyne)
Texasgulf, High Ridge Park, Stamford, Conn. 06904
Titanium Metals Corp. of America, P.O. Box 2824, Pittsburgh, Pa. 15230 (jointly owned by Allegheny Ludlum Industries and NL Industries)
U.S. Steel Corp., 600 Grant St., Pittsburgh, Pa. 15230

Food

American Maize-Products Co., 250 Park Ave., New York, N.Y. 10017
Amstar Corp., 1251 Ave. of the Americas, New York, N.Y. 10020
Anderson Clayton Foods, P.O. Box 6165, Dallas, Tex. 75251 (division of Anderson Clayton & Co.)
Archer Daniels Midland Co., P.O. Box 1470, Decatur, Ill. 62525
Armour & Co., Greyhound Tower, Phoenix, Ariz. 85077 (subsidiary of Greyhound Corp.)
Beatrice Foods Co., 2 North La Salle St., Chicago, Ill. 60602
Borden, 180 East Broad St., Columbus, Ohio 43215
Campbell Soup Co., Campbell Pl., Camden, N.J. 08101
Carnation Co., 5045 Wilshire Blvd., Los Angeles, Calif. 90036
Central Soya Co., 1300 Ft. Wayne National Bank Bldg., Ft. Wayne, Ind. 46802
Consolidated Foods Corp., 135 South La Salle St., Chicago, Ill. 60603
CPC International, International Plaza, Englewood Cliffs, N.J. 07632
Cudahy Co., 100 West Clarendon St., Phoenix, Ariz. 85013 (subsidiary of General Host Corp.)
Del Monte Corp., P.O. Box 3575, San Francisco, Calif. 94119 (subsidiary of R. J. Reynolds Industries)
Esmark, 55 East Monroe St., Chicago, Ill. 60603
General Foods Corp., 250 North St., White Plains, N.Y. 10625
General Mills, P.O. Box 1113, Minneapolis, Minn. 55440
Gerber Products Co., Fremont, Mich. 49412
Heinz U.S.A., P.O. Box 57, Pittsburgh, Pa. 15230
Hershey Foods Corp., 19 East Chocolate Ave., Hershey, Pa. 17033
Geo. A. Hormel & Co., Austin, Minn. 55912
Kellogg Co., 235 Porter St., Battle Creek, Mich. 49016
Kraft, Kraft Ct., Glenview, Ill. 60025
Libby, McNeill & Libby, 200 South Michigan Ave., Chicago, Ill. 60604
Thomas J. Lipton, 800 Sylvan Ave., Englewood Cliffs, N.J. 07632
McCormick & Co., 11350 McCormick Rd., Hunt Valley, Md. 21031
Nabisco, River Rd., East Hanover, N.J. 07936
Norton Simon, 277 Park Ave., New York, N.Y. 10017
Pepperidge Farm, P.O. Box 5500, Norwalk, Conn. 06856 (subsidiary of Campbell Soup Co.)
Pet, 400 South Fourth St., St. Louis, Mo. 63166 (subsidiary of IC Industries)
Pillsbury Co., 608 Second Ave., South, Minneapolis, Minn. 55402
Quaker Oats Co., P.O. Box 3514, Chicago, Ill. 60654
Ralston Purina Co., 835 South Eighth St., St. Louis, Mo. 63188
A. E. Staley Mfg. Co., P.O. Box 151, Decatur, Ill. 62525
Standard Brands, 625 Madison Ave., New York, N.Y. 10022
Stokely-Van Camp, 941 North Meridian St., Indianapolis, Ind. 46206
Swift & Co., 115 West Jackson Blvd., Chicago, Ill. 60604 (subsidiary of Esmark)
Universal Foods Corp., 433 East Michigan St., Milwaukee, Wis. 53202
Wm. Wrigley Jr. Co., 410 North Michigan Ave., Chicago, Ill. 60611

Other manufacturers

Abcor, 850 Main St., Wilmington, Mass. 01887
Aerojet-General Corp., 9100 East Flair Dr., El Monte, Calif. 91734 (subsidiary of General Tire & Rubber Co.)
Allis-Chalmers Corp., P.O. Box 512, Milwaukee, Wis. 53201
Alza Corp., 950 Page Mill Rd., Palo Alto, Calif. 94304
AM Bruning, 1834 Walden Office Sq., Schaumburg, Ill. 60196
American Air Filter Co., 200 Central Ave., Louisville, Ky. 40277
American Brands, 245 Park Ave., New York, N.Y. 10017
American Can Co., American La., Greenwich, Conn. 06830
American Hospital Supply Corp., 1740 Ridge Ave., Evanston, Ill. 60204
American Motors Corp., 14250 Plymouth Rd., Detroit, Mich. 48232
American Optical Corp., 14 Mechanic St., Southbridge, Mass. 01550 (subsidiary of Warner-Lambert Co.)
American Standard, 40 West 40th St., New York, N.Y. 10018
American Telephone & Telegraph Co., 195 Broadway, New York, N.Y. 10007
AMF World Tobacco Group, 6100 Western Pl., Fort Worth, Tex. 76107
AM International, 1900 Ave. of the Stars, Los Angeles, Calif. 90067
AMP, P.O. Box 3608, Harrisburg, Pa. 17105
Ampex Corp., 401 Broadway, Redwood City, Calif. 94063
Anchor Hocking Corp., 70 Glass Ave., Lancaster, Ohio 43130
Anheuser-Busch, 721 Pestalozzi St., St. Louis, Mo. 63118
Armstrong Cork Co., 1010 Concord St., Lancaster, Pa. 17604
Atlantic Research Corp., 5390 Cherokee Ave., Alexandria, Va. 22314
Avco Corp., 1275 King St., Greenwich, Conn. 06830
Babcock & Wilcox Co., P.O. Box 1126, Wall St. Station, New York, N.Y. 10005
Badger Co., 1 Broadway, Cambridge, Mass. 02142 (division of Raytheon Co.)
Baird Corp., 125 Middlesex Tpke., Bedford, Mass. 01730
Bausch & Lomb, 1 Lincoln First Sq., Rochester, N.Y. 14601
Beckman Instruments, 2500 Harbor Blvd., Fullerton, Calif. 92634
Becton, Dickinson & Co., Mack Center Dr., Paramus, N.J. 07652
Becton, Dickinson Immunodiagnostics, Mountain View Ave., Orangeburg, N.Y. 10962
Bell & Howell Co., 7100 McCormick Rd., Chicago, Ill. 60645
Bendix Corp., Bendix Ctr., Southfield, Mich. 48037
Bio-Dynamics, 9115 Hague Rd., Indianapolis, Ind. 46250
Blaw-Knox Equipment, Blaw Ave., Blawnox, Pa. 15238 (division of White Consolidated Industries)
Borg-Warner Corp., 200 South Michigan Ave., Chicago, Ill. 60604
Bostik, Middleton, Mass. 01949 (division of USM Corp.)
Budd Co., 3155 West Big Beaver Rd., Troy, Mich. 48084
Burlington Industries, P.O. Box 21207, Greensboro, N.C. 27420
Burroughs Corp., Burroughs Pl., Detroit, Mich. 48232
Carborundum Co., P.O. Box 337, Niagara Falls, N.Y. 14302 (subsidiary of Kennecott Copper Corp.)
Cargill, Cargill Bldg., Minneapolis, Minn. 55402
Caterpillar Tractor Co., 100 N.E. Adams St., Peoria, Ill. 61629
Celotex Corp., 1500 North Dale Mabry Hwy., Tampa, Fla. 33607 (division of Jim Walter Corp.)
Chemical Products Corp., P.O. Box 449, Cartersville, Ga. 30120
Chrysler Corp., P.O. Box 1919, Detroit, Mich. 48288
C&I Girdler, P.O. Box 32940, Louisville, Ky. 40232 (division of Bechtel Corp.)
Combustion Engineering, 900 Long Ridge Rd., Stamford, Conn. 06902
Continental Can Co. U.S.A., 5745 East River Rd., Chicago, Ill. 60631 (member of Continental Group)
Coors Porcelain Co., 600 Ninth St., Golden, Colo. 80401 (division of Adolph Coors Co.)
Corning Glass Works, 80 Houghton Park, Corning, N.Y. 14830
Crown Cork & Seal Co., 9300 Ashton Rd., Philadelphia, Pa. 19136
Curtiss-Wright Corp., 1 Passaic St., Wood-Ridge, N.J. 07075
Dade division, 1851 Delaware Pkwy., Miami, Fla. 33152 (division of American Hospital Supply Corp.)
Dan River International Corp., 111 West 40th St., New York, N.Y. 10018
Dayco Corp., 333 West First St., Dayton, Ohio 45402
Deere & Co., John Deere Rd., Moline, Ill. 61265
Dorr-Oliver, 77 Havemeyer La., Stamford, Conn. 06904 (subsidiary of Curtiss-Wright Corp.)
Dresser Industries, 1505 Elm St., Dallas, Tex. 75201
Eastman Kodak Co., 343 State St., Rochester, N.Y. 14650
El Paso Co., P.O. Box 2185, Houston, Tex. 77001
ESB, 5 Penn Center Plaza, Philadelphia, Pa. 19103
Evans Products Co., P.O. Box 3295, Portland, Ore. 97208
Fairchild Camera & Instrument Corp., 464 Ellis St., Mountain View, Calif. 94042

Directory

Fasson Industrial Division, 252 Chester St., Painesville, Ohio 44077 (division of Avery International)
Fisher Scientific Co., 711 Forbes Ave., Pittsburgh, Pa. 15219
Flintkote Co., 1351 Washington Blvd., Stamford, Conn. 06902
Fluor Corp., 3333 Michelson Dr., Irvine, Calif. 92730
Ford, Bacon & Davis, 2 Broadway, New York, N.Y. 10004
Ford Motor Co., American Rd., Dearborn, Mich. 48127
Foremost-McKesson, 1 Post St., San Francisco, Calif. 94104
Foster Wheeler Corp., 110 South Orange Ave., Livingston, N.J. 07039
Foxboro Co., 86 Neponset Ave., Foxboro, Mass. 02035
Franklin GNO Corp., P.O. Box 3206, West Palm Beach, Fla. 33402
H. B. Fuller Co., 2402 Kasota Ave., St. Paul, Minn. 55108
GATX Corp., 120 South Riverside Plaza, Chicago, Ill. 60606
General Dynamics Corp., Pierre Laclede Ctr., St. Louis, Mo. 63105
General Electric Co., 3135 Easton Ave., Fairfield, Conn. 06431
General Motors Corp., 3044 West Grand Blvd., Detroit, Mich. 48202
General Resource Corp., 203 South Third St., Hopkins, Minn. 55343
General Telephone & Electronics Corp., 1 Stamford Forum, Stamford, Conn. 06904
Globe Union, 5757 North Green Bay Ave., Milwaukee, Wis. 53201
Grain Processing Corp., P.O. Box 349, Muscatine, Iowa 52761
Greyhound Corp., 111 West Clarendon Ave., Phoenix, Ariz. 85077
Grumman Corp., 1111 Stewart Ave., Bethpage, N.Y. 11714
Gulf & Western Industries, 1 Gulf & Western Plaza, New York, N.Y. 10023
G&W Electric Specialty Co., 3500 West 127th St., Blue Island, Ill. 60406
Honeywell, Honeywell Plaza at 27th St., Minneapolis, Minn. 55408
Horizons, 23800 Mercantile Rd., Cleveland, Ohio 44122 (affiliated with Horizons Research)
Indian Head, 1211 Ave. of the Americas, New York, N.Y. 10036
Instrumentation Laboratory, 113 Hartwell Ave., Lexington, Mass. 02173
International Business Machines Corp., Old Orchard Rd., Armonk, N.Y. 10504
International Harvester Co., 401 North Michigan Ave., Chicago, Ill. 60611
International Playtex, 888 Seventh Ave., New York, N.Y. 10019 (division of Esmark)
Interpace Corp., 260 Cherry Hill Rd., Parsippany, N.J. 07054
Ionics, 65 Grove St., Watertown, Mass. 02172
Itek Corp., 10 Maguire Rd., Lexington, Mass. 02173
Johns-Manville Corp., Ken-Caryl Ranch, Denver, Colo. 80217
Johnson & Johnson, 501 George St., New Brunswick, N.J. 08903
Johnson Wax, 1521 Howe St., Racine, Wis. 53403
Jones-Blair Co., P.O. Box 35286, Dallas, Tex. 75235
Leeds & Northrup Co., Sumneytown Pike, North Wales, Pa. 19454
Libbey-Owens-Ford Co., 811 Madison Ave., Toledo, Ohio 43695
Liggett Group, 4100 Roxboro Rd., Durham, N.C. 27702
Litton Industries, 360 North Crescent Dr., Beverly Hills, Calif. 90210
Lockheed Corp., 2555 North Hollywood Way, Burbank, Calif. 91503
Loctite Corp., 999 North Mountain Rd., Newington, Conn. 06111
Lorillard, 666 Fifth Ave., New York, N.Y. 10019 (division of Loew's Theatres)
LTV Corp., P.O. Box 225003, Dallas, Tex. 75265
Lummus Co., 1515 Broad St., Bloomfield, N.J. 07003 (subsidiary of Combustion Engineering)
3M Co., 3M Ctr., St. Paul, Minn. 55101
P. R. Mallory & Co., 3029 East Washington St., Indianapolis, Ind. 46206
Marcor, 535 West Chicago Ave., Chicago, Ill. 60610
Martin Marietta Corp., 6801 Rockledge Dr., Bethesda, Md. 20034
Masonite Corp., 29 North Wacker Dr., Chicago, Ill. 60606
McDonnell Douglas Corp., P.O. Box 516, St. Louis, Mo. 63166
McGaw Laboratories, P.O. Box 11887, Santa Ana, Calif. 92711 (division of American Hospital Supply Corp.)
Meloy Laboratories, 6715 Electronics Dr., Springfield, Va. 22151 (subsidiary of Revlon)
Millipore Corp., Wiggins Ave., Bedford, Mass. 01730
Mine Safety Appliances Co., 608 Penn Center Blvd., Pittsburgh, Pa. 15235
Philip Morris, 100 Park Ave., New York, N.Y. 10017
Motorola, 1303 East Algonquin Rd., Schaumburg, Ill. 60196
MRC Corp., 11212 McCormick Rd., Hunt Valley, Md. 21031
Nashua Corp., 44 Franklin St., Nashua, N.H. 03061
National Can Corp., 5959 South Cicero Ave., Chicago, Ill. 60638
National Gypsum Co., 4100 First International Bldg., Dallas, Tex. 75270
NCR Corp., 1700 South Patterson Blvd., Dayton, Ohio 45479
Nicolet, Ford & Washington St., Norristown, Pa. 19401
NL Industries, 111 Broadway, New York, N.Y. 10006
Northern Natural Gas Co., 2223 Dodge St., Omaha, Neb. 68102
Norton Co., 50 New Bond St., Worcester, Mass. 01606
Owens-Corning Fiberglas Corp., Fiberglas Tower, Toledo, Ohio 43659
Owens-Illinois, P.O. Box 1035, Toledo, Ohio 43666
Para-Chem, Ontario & Rorer St., Philadelphia, Pa. 19114
Parkson Corp., 5601 Northeast 14th Ave., Ft. Lauderdale, Fla. 33334 (subsidiary of A. Johnson Co.)
Ralph M. Parsons Co., 100 West Walnut St., Pasadena, Calif. 91124
PCR, P.O. Box 1466, Gainesville, Fla. 32601 (part of organic chemicals division of SCM Corp.)
Perkin-Elmer Corp., Main Ave., Norwalk, Conn. 06856
Petrolite Corp., 100 North Broadway, St. Louis, Mo. 63102
Pierce & Stevens Chemical Corp., 724 Ohio St., Buffalo, N.Y. 14203 (division of Pratt & Lambert)
Polaroid Corp., 549 Technology Sq., Cambridge, Mass. 02139
Polymer Applications, 3443 River Rd., Tonawanda, N.Y. 14150
Polymer Industries, Viaduct Rd., Stamford, Conn. 06907 (subsidiary of Philip Morris)
Pratt & Whitney Aircraft Group, 400 Main St., East Hartford, Conn. 06108 (division of United Technologies Corp.)
Pullman Power Products, P.O. Box 3308, Williamsport, Pa. 17701 (division of Pullman)
Radiation Management Corp., 3508 Market St., Philadelphia, Pa. 19104
Raychem Corp., 300 Constitution Dr., Menlo Park, Calif. 94025
RCA Corp., 30 Rockefeller Plaza, New York, N.Y. 10020
Research-Cottrell, P.O. Box 1500, Somerville, N.J. 08876
R. J. Reynolds Industries, 401 North Main St., Winston-Salem, N.C. 27102
H. H. Robertson Co., 400 Holiday Dr., Pittsburgh, Pa. 15220
Rockwell International Corp., 600 Grant St., Pittsburgh, Pa. 15219
Sargent-Welch Scientific Co., 7300 North Linder Ave., Skokie, Ill. 60077
Jos. Schlitz Brewing Co., 235 West Galena St., Milwaukee, Wis. 53201
Schwarz/Mann, Mountain View Ave., Orangeburg, N.Y. 10962 (division of Becton Dickinson Immunodiagnostics)
Scientific Design Co., 2 Park Ave., New York, N.Y. 10016 (subsidiary of Halcon International)
SCM Corp., 299 Park Ave., New York, N.Y. 10017
Sears, Roebuck & Co., Sears Tower, Chicago, Ill. 60684
Signal Cos., 9665 Wilshire Blvd., Beverly Hills, Calif. 90212
Singer Co., 30 Rockefeller Plaza, New York, N.Y. 10020
Spectra-Physics, 1250 West Middlefield Rd., Mountain View, Calif. 94042
Sprague Electric Co., 149 Marshall St., North Adams, Mass. 01247 (subsidiary of General Cable Corp.)
J. P. Stevens & Co., 1185 Ave. of the Americas, New York, N.Y. 10036
Stone & Webster Engineering Corp., P.O. Box 2325, Boston, Mass. 02107 (subsidiary of Stone & Webster)
Swedlow, 12122 Western Ave., Garden Grove, Calif. 92645
Teepak, 2 North Riverside Plaza, Chicago, Ill. 60606 (member of Continental Group)
Tektronix, P.O. Box 500, Beaverton, Ore. 97077
Texas Instruments, P.O. Box 5012, Dallas, Tex. 75222
Thiokol Corp., P.O. Box 1000, Newtown, Pa. 18940
U.S. Gypsum Co., 101 South Wacker Dr., Chicago, Ill. 60606
United Technologies Corp., 1 Financial Plaza, Hartford, Conn. 06101
UOP, 10 UOP Plaza, Algonquin Rd., Des Plaines, Ill. 60016 (subsidiary of Signal Cos.)
Varian Associates, 611 Hansen Way, Palo Alto, Calif. 94303
Jim Walter Corp., 1500 North Dale Mabry Hwy., Tampa, Fla. 33622
Western Electric Co., 222 Broadway, New York, N.Y. 10038 (division of American Telephone & Telegraph Co.)
Westinghouse Electric Corp., 3 Gateway Ctr., Pittsburgh, Pa. 15222
Will Ross, P.O. Box 2012, Milwaukee, Wis. 53201 (subsidiary of G. D. Searle & Co.)
Xerox Corp., High Ridge Park, Stamford, Conn. 06904
Zenith Radio Corp., 1000 North Milwaukee Ave., Glenview, Ill. 60025

Research

Argonne National Laboratory, 9700 South Cass Ave., Argonne, Ill. 60439
Battelle Columbus Laboratories, 505 King Ave., Columbus, Ohio 43201
Battelle Pacific Northwest Laboratories, P.O. Box 999, Richland, Wash. 99352
Bell Laboratories, 600 Mountain Ave., Murray Hill, N.J. 07974 (division of American Telephone & Telegraph Co.)
Brookhaven National Laboratory, Upton, N.Y. 11973
Carnegie-Mellon Institute of Research, 4400 Fifth Ave., Pittsburgh, Pa. 15213
Chemical Abstracts Service, Ohio State University, Columbus, Ohio 43210
Commercial Testing & Engineering Co., 228 North La Salle St., Chicago, Ill. 60601 (division of Peabody International Corp.)
Denver Research Institute, University Park, Denver, Colo. 80208
Exxon Research & Engineering Co., P.O. Box 221, Florham Park, N.J. 07932 (division of Exxon Corp.)
Franklin Institute, 20th & Race St., Philadelphia, Pa. 19103
Gillette Research Institute, 1413 Research Blvd., Rockville, Md. 20850
IIT Research Institute, 10 West 35th St., Chicago, Ill. 60616
Institute of Gas Technology, 3424 South State St., Chicago, Ill. 60616
Institute of Paper Chemistry, P.O. Box 1043, Appleton, Wis. 54911
Lawrence Berkeley Laboratory, University of California, 1 Cyclotron Rd., Berkeley, Calif. 94720
Lawrence Livermore Laboratory, University of California, P.O. Box 808, Livermore, Calif. 94550
Arthur D. Little Inc., 25 Acorn Park, Cambridge, Mass. 02140
Los Alamos Scientific Laboratory, P.O. Box 1663, Los Alamos, N.M. 87545
Materials Research Laboratory, University of Illinois, Urbana, Ill. 61801
Midwest Research Institute, 425 Volker Blvd., Kansas City, Mo. 64110
North Star Research & Development Institute, 3100—38th Ave. South, Minneapolis, Minn. 55406
Oak Ridge National Laboratory, P.O. Box X, Oak Ridge, Tenn. 37830
Rand Corp., 1700 Main St., Santa Monica, Calif. 90406
Research Triangle Institute, P.O. Box 12194, Research Triangle Park, N.C. 27709
Sandia Laboratory, P.O. Box 5800, Albuquerque, N.M. 87115
Foster D. Snell Inc., 66 Hanover Rd., Florham Park, N.J. 07932 (division of Booz, Allen & Hamilton)
Southern Research Institute, 2000 Ninth Ave. South, Birmingham, Ala. 35205
Southwest Research Institute, 6220 Culebra Rd., San Antonio, Tex. 78284
SRI International, 333 Ravenswood Ave., Menlo Park, Calif. 94025
Sterling-Winthrop Research Institute, Columbia Tpke., Rensselaer, N.Y. 12144 (division of Sterling Drug)
Underwriters Laboratories, 333 Pfingsten Rd., Northbrook, Ill. 60062
United States Testing Co., 1941 Park Ave., Hoboken, N.J. 07030